

FIG. 1A  
(PRIOR ART)

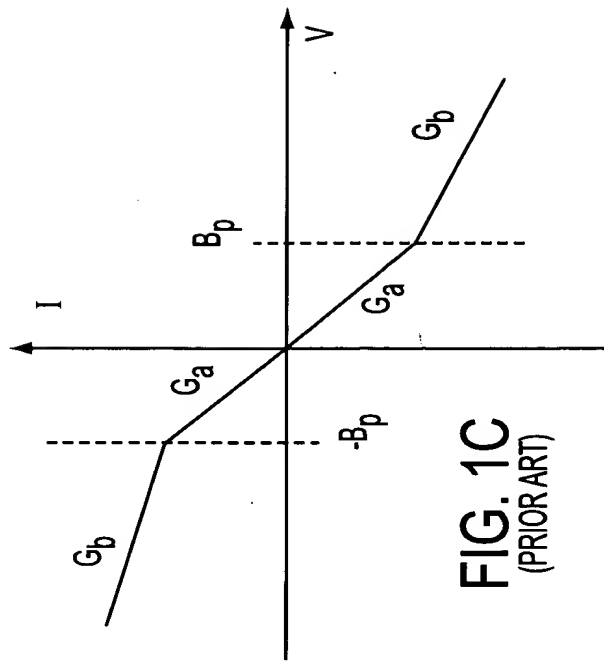


FIG. 1C  
(PRIOR ART)

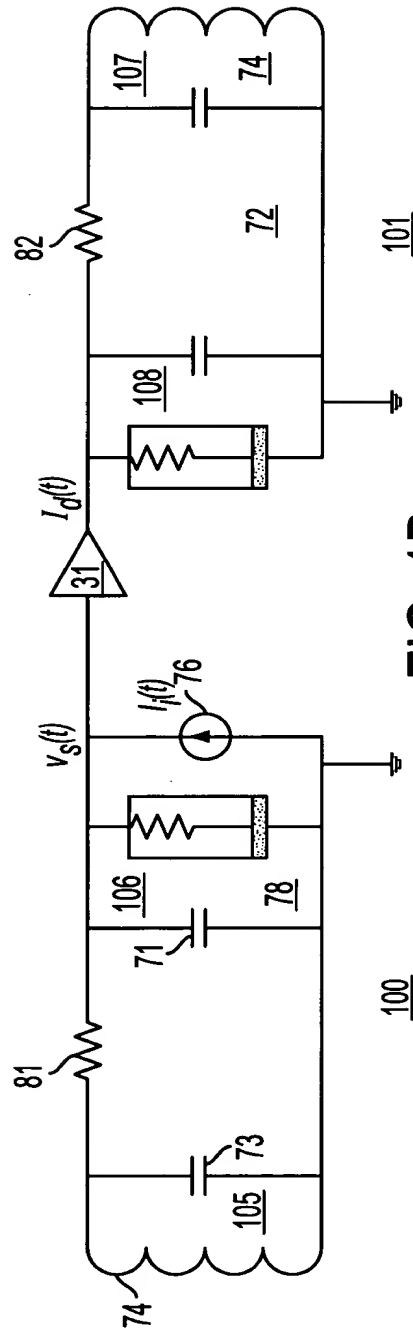


FIG. 1B  
(PRIOR ART)

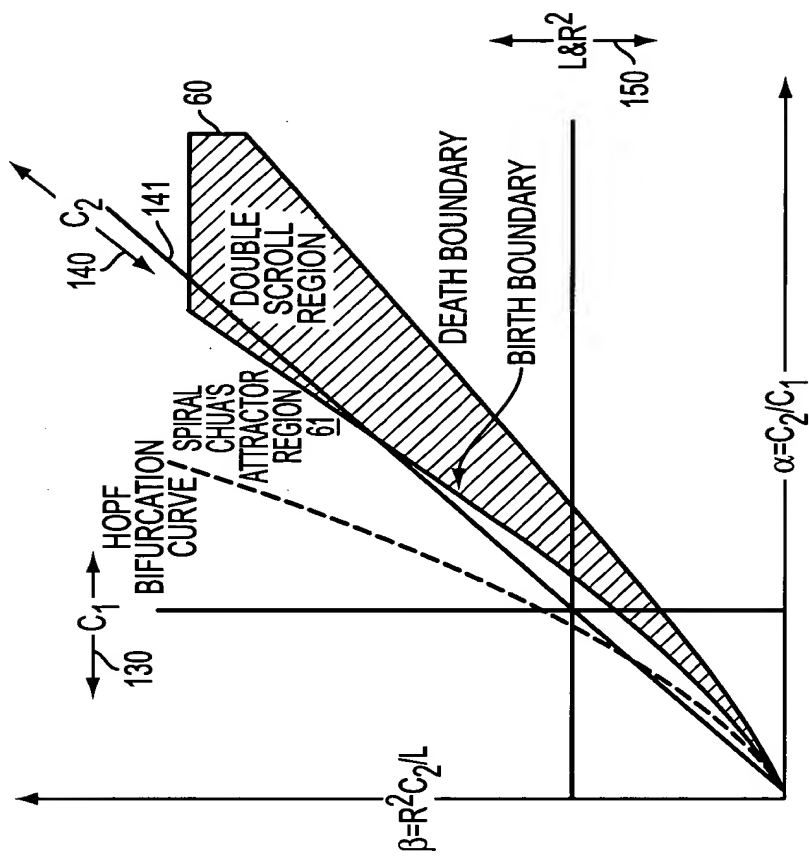


FIG. 1D

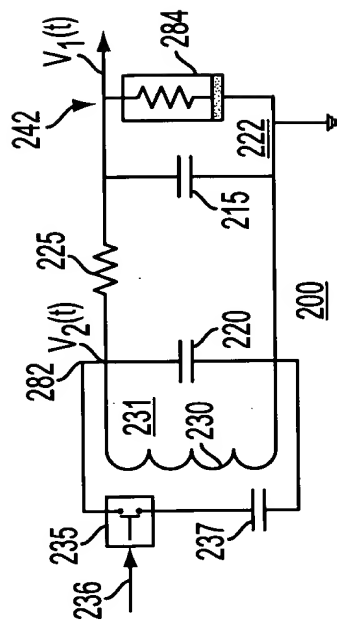


FIG. 2A

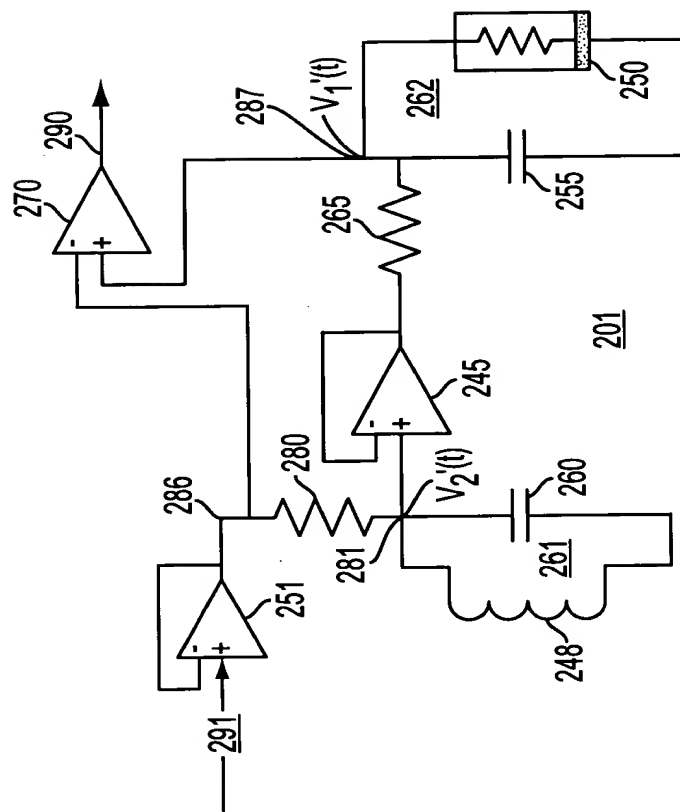


FIG. 2B  
(PRIOR ART)

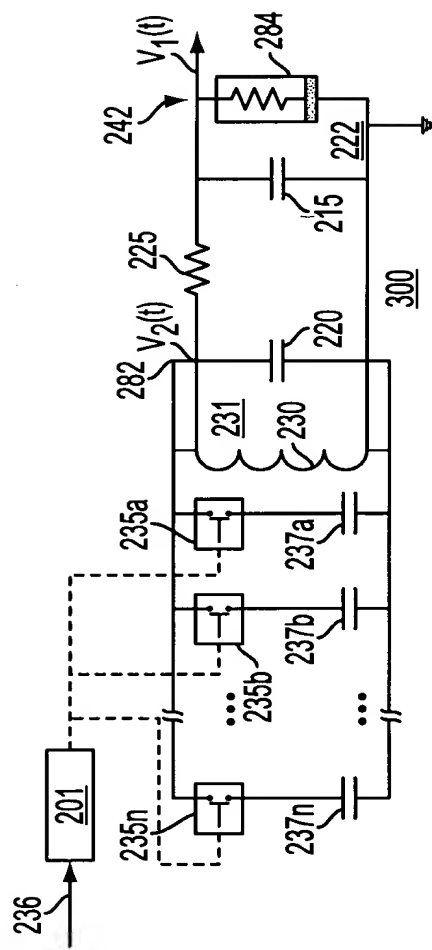


FIG. 3A

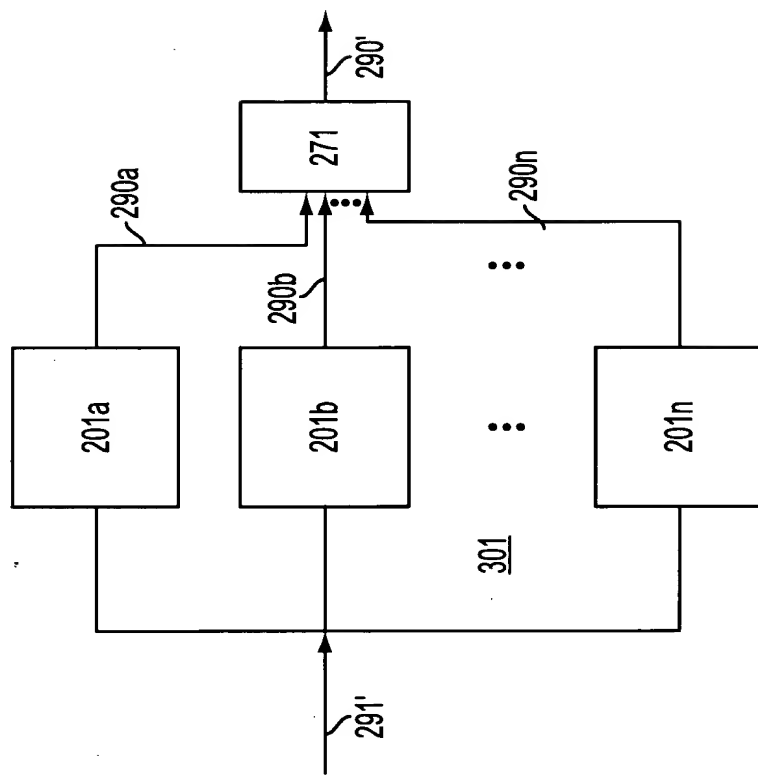
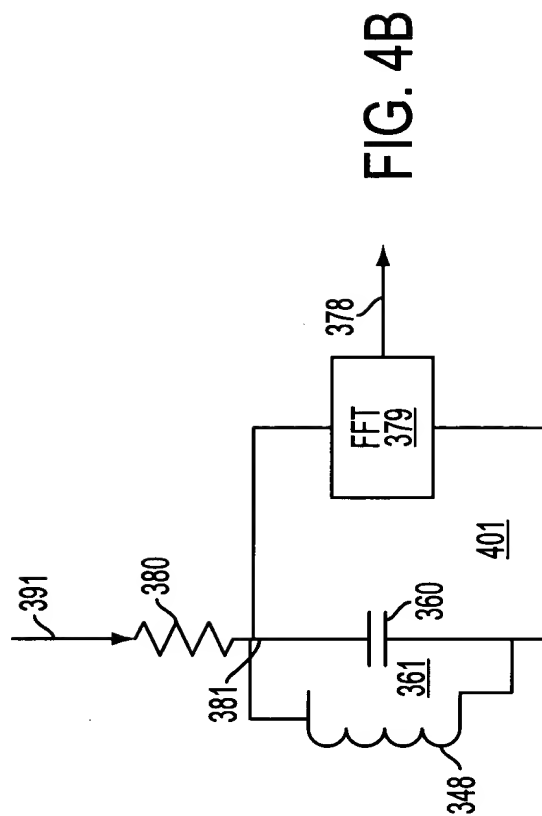
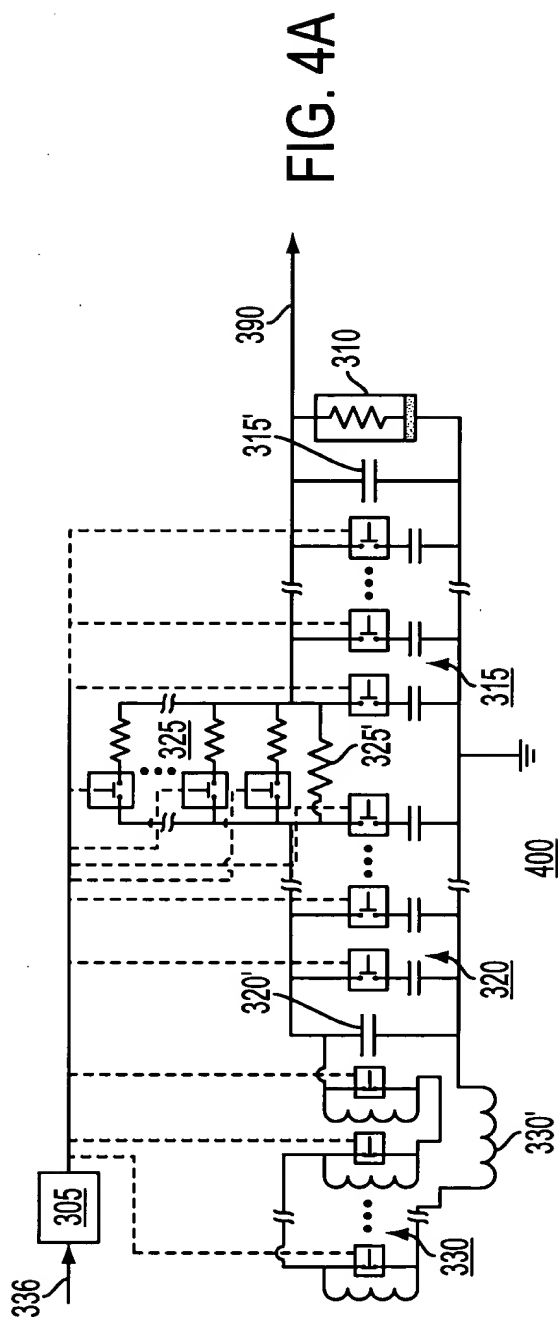


FIG. 3B



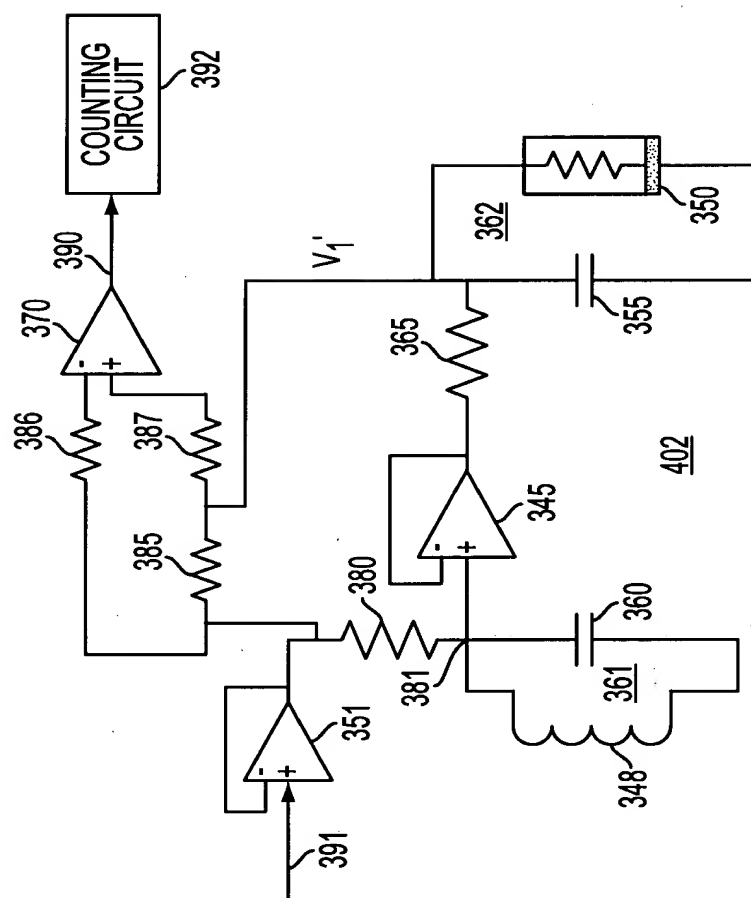


FIG. 4C

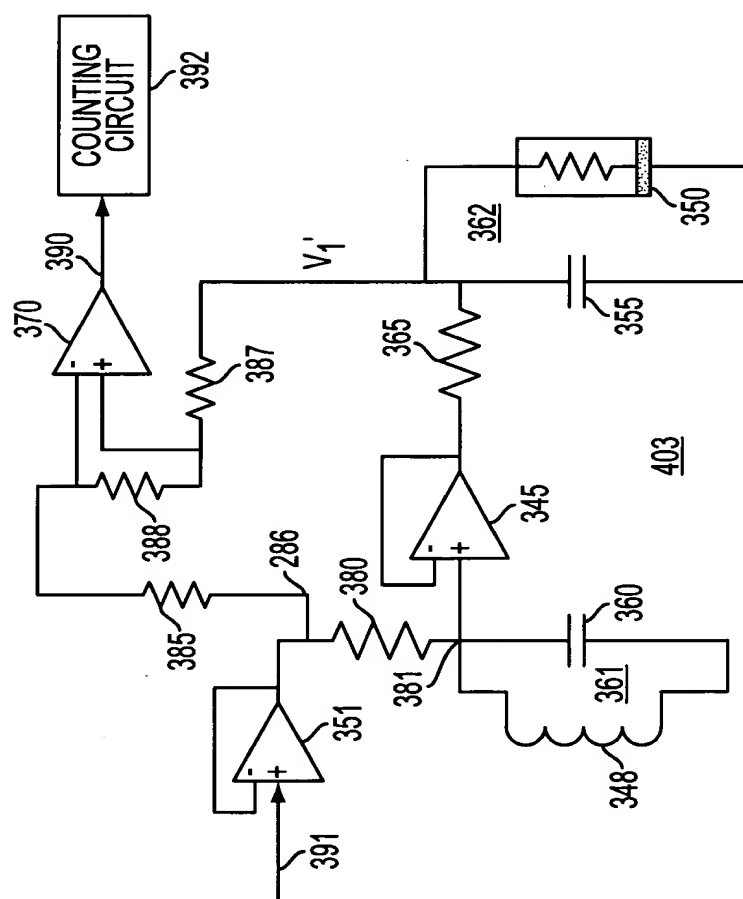


FIG. 4D

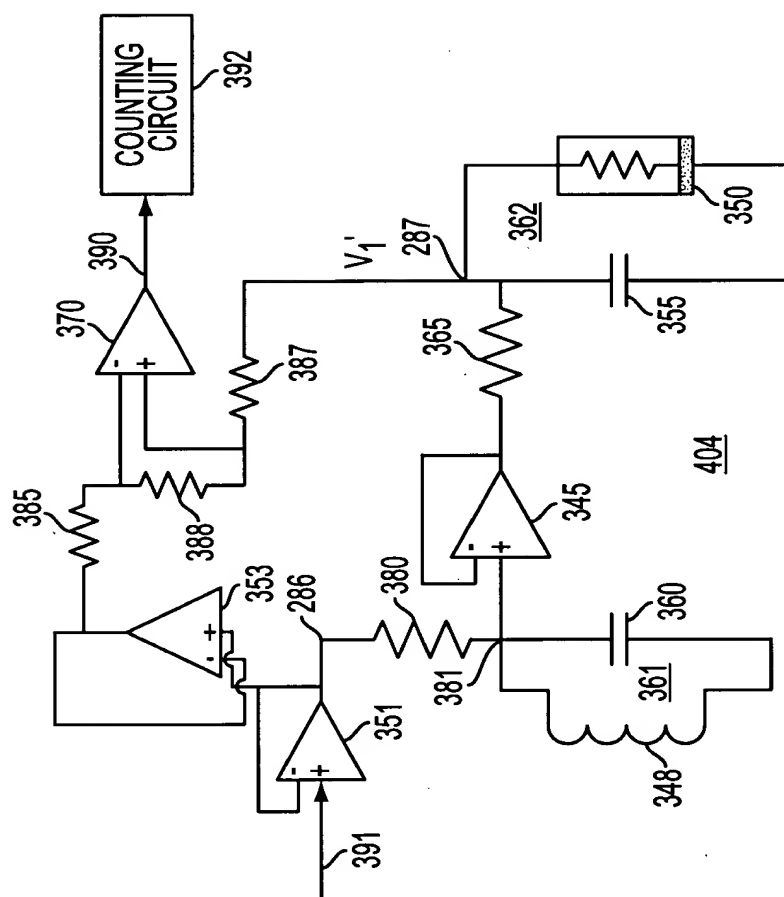


FIG. 4E



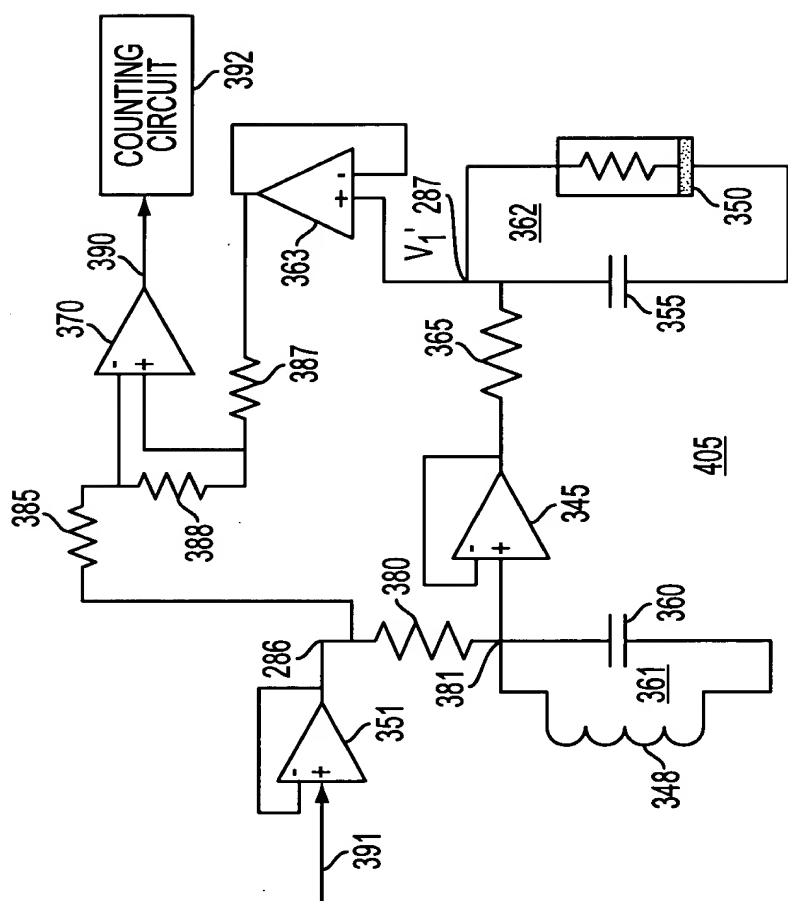


FIG. 4F

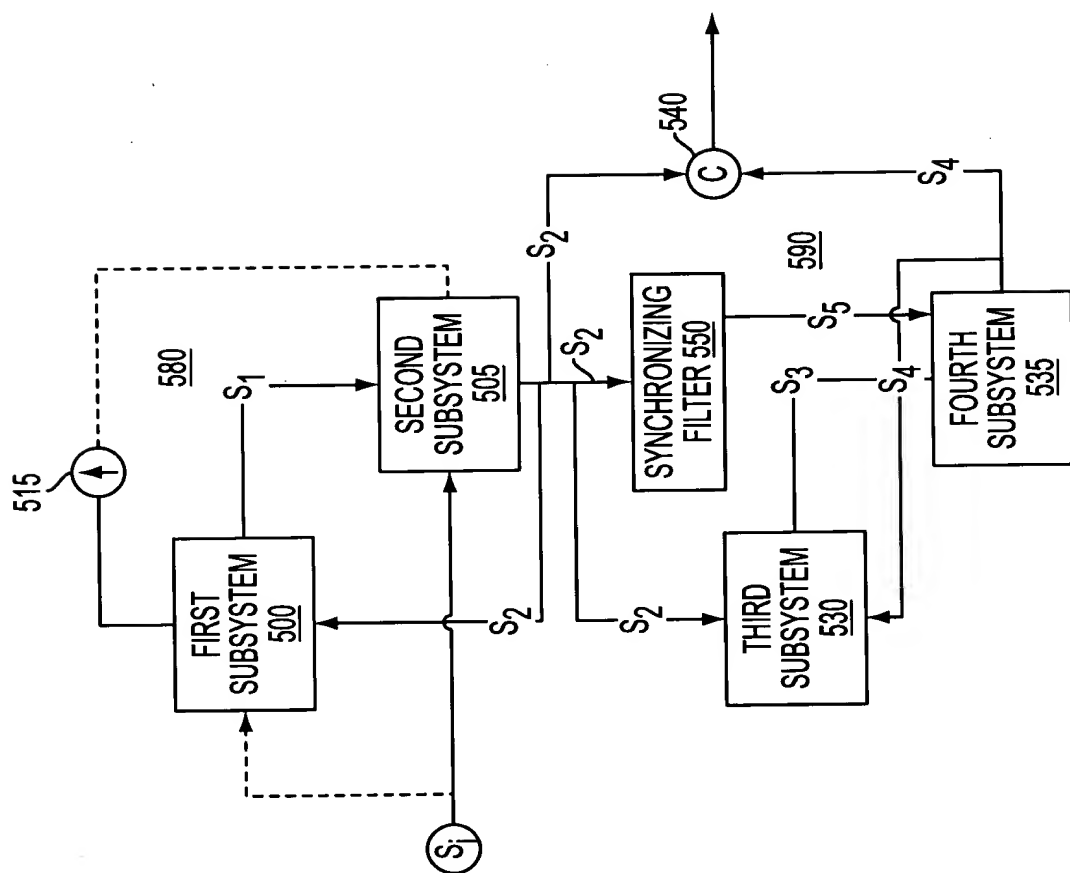
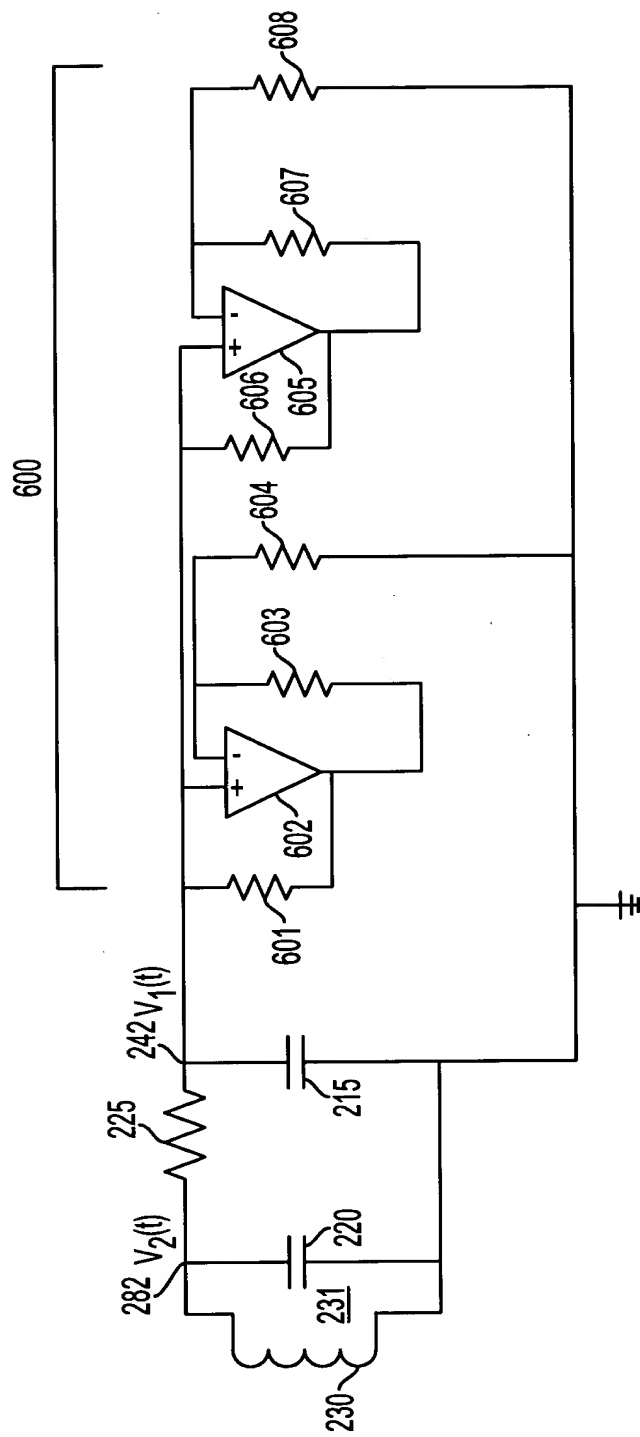


FIG. 5



**FIG. 6A**  
(PRIOR ART)



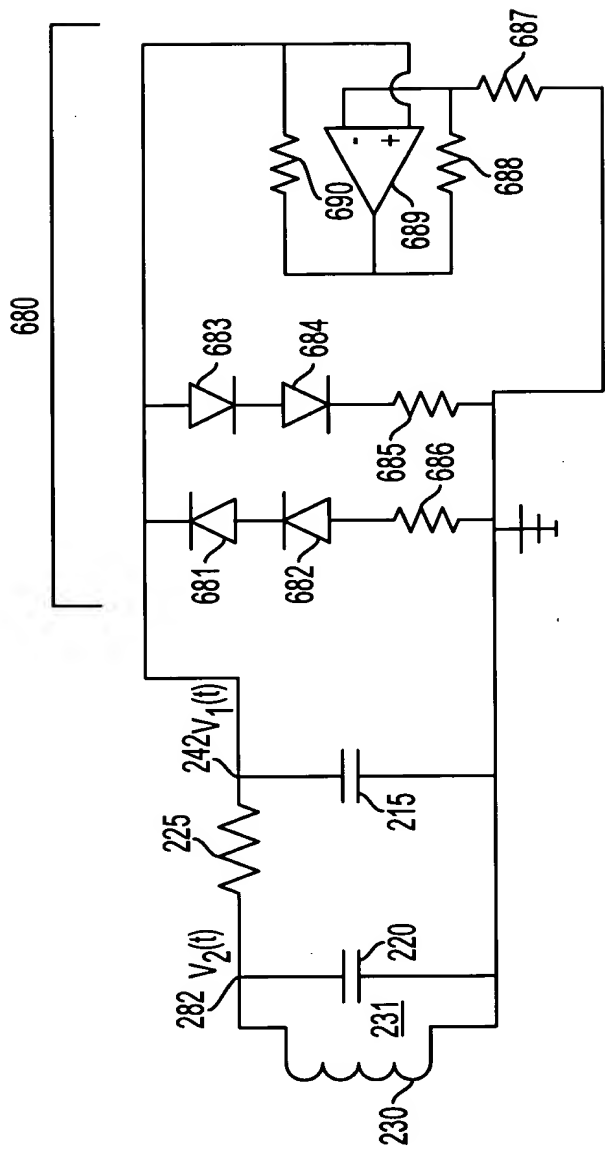


FIG. 6C

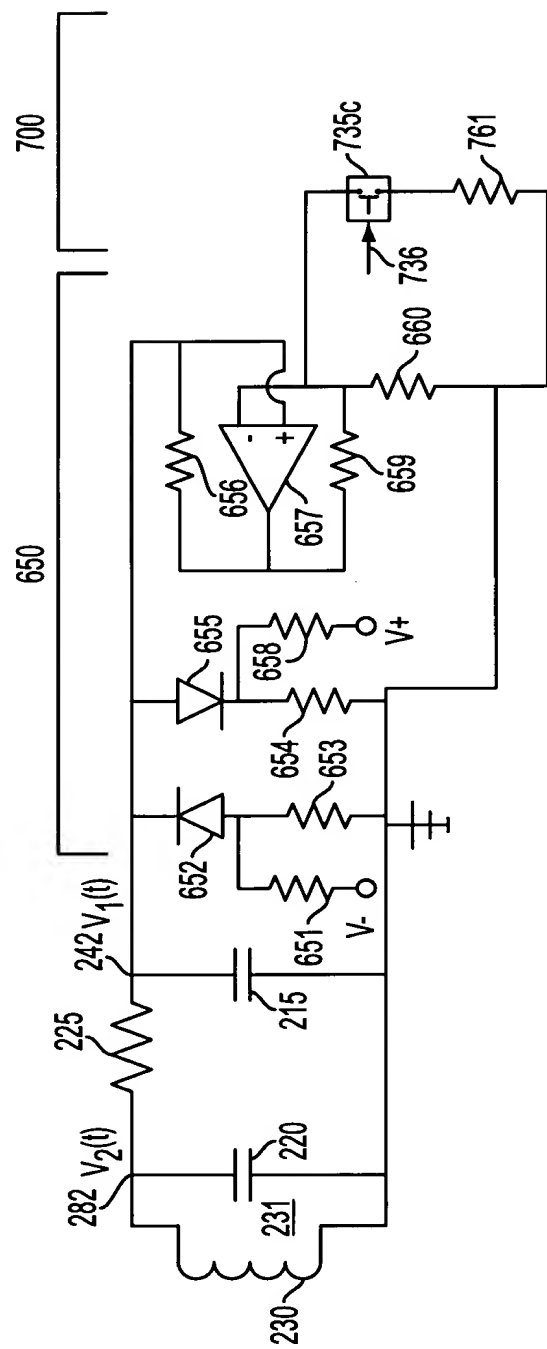


FIG. 7A

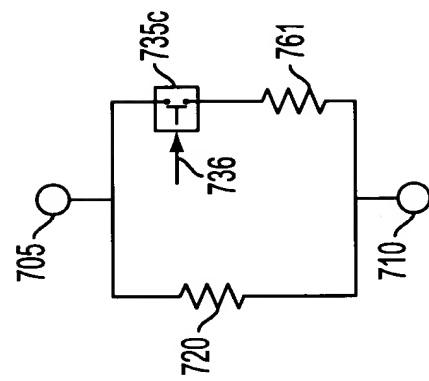


FIG. 7B

FIG. 6B CALTECH	R2'	R2	R1	R2'/R2	R2'/R2/R1
ELEMENT	653	654	660	653/654	653/654/660
G <sub>a</sub>			X		X
G <sub>b</sub> UPPER SCROLL		X	X	X	X
G <sub>b</sub> LOWER SCROLL	X		X	X	X

$$G_a = -1/R1$$

$$G_b = (R1-R2)/(R1*R2)$$

FIG. 6A KENNEDY	R4	R5	R6	R1	R2	R3	R1/R3	R1/R2/R3	R5/R6	R1/R2/R3/R4
ELEMENT	601	603	604	606	607	608	606/608	606/608/607	603/604	606/607/608/601
G <sub>a</sub>	X	X	X	X	X	X	X	X	X	X
G <sub>b</sub> UPPER	X			X	X	X	X	X		X
G <sub>b</sub> LOWER	X			X	X	X	X	X		X

$$G_a = -(R2/(R1*R3)-(R5/(R4*R6)))$$

$$G_b = -(R2/(R1*R3)+(1/R4))$$

FIG. 7C



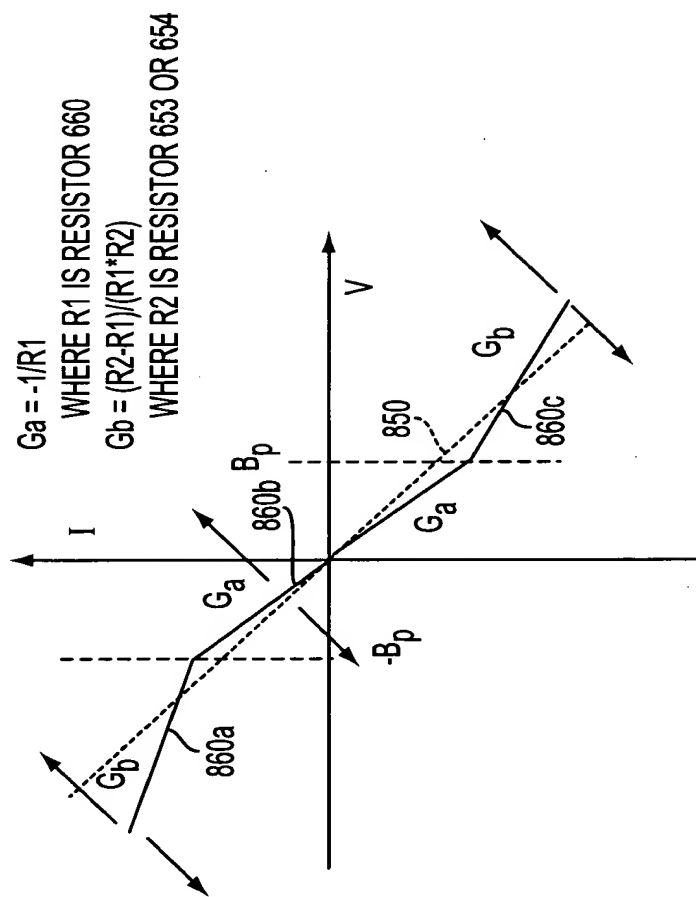


FIG. 8

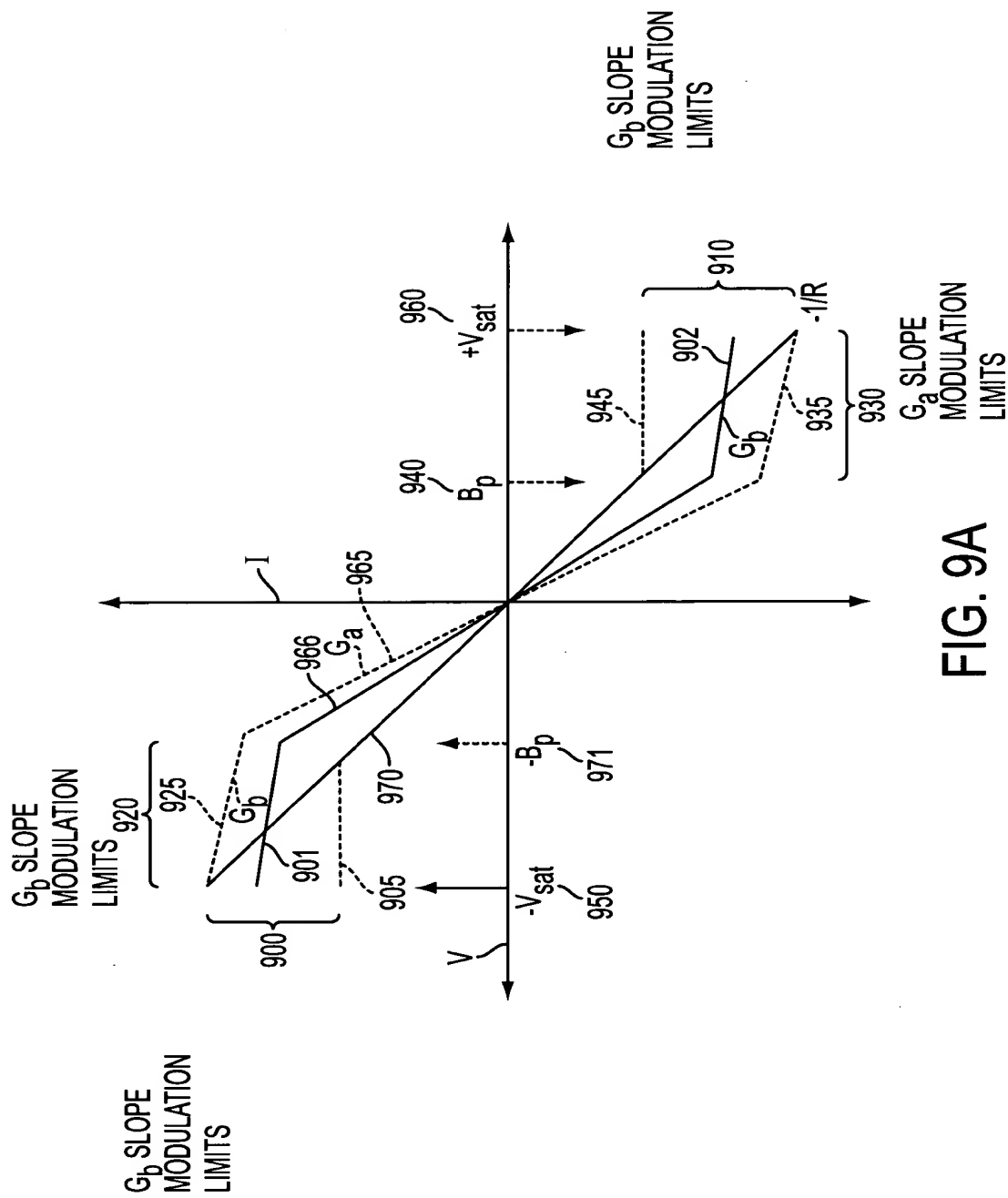


FIG. 9A

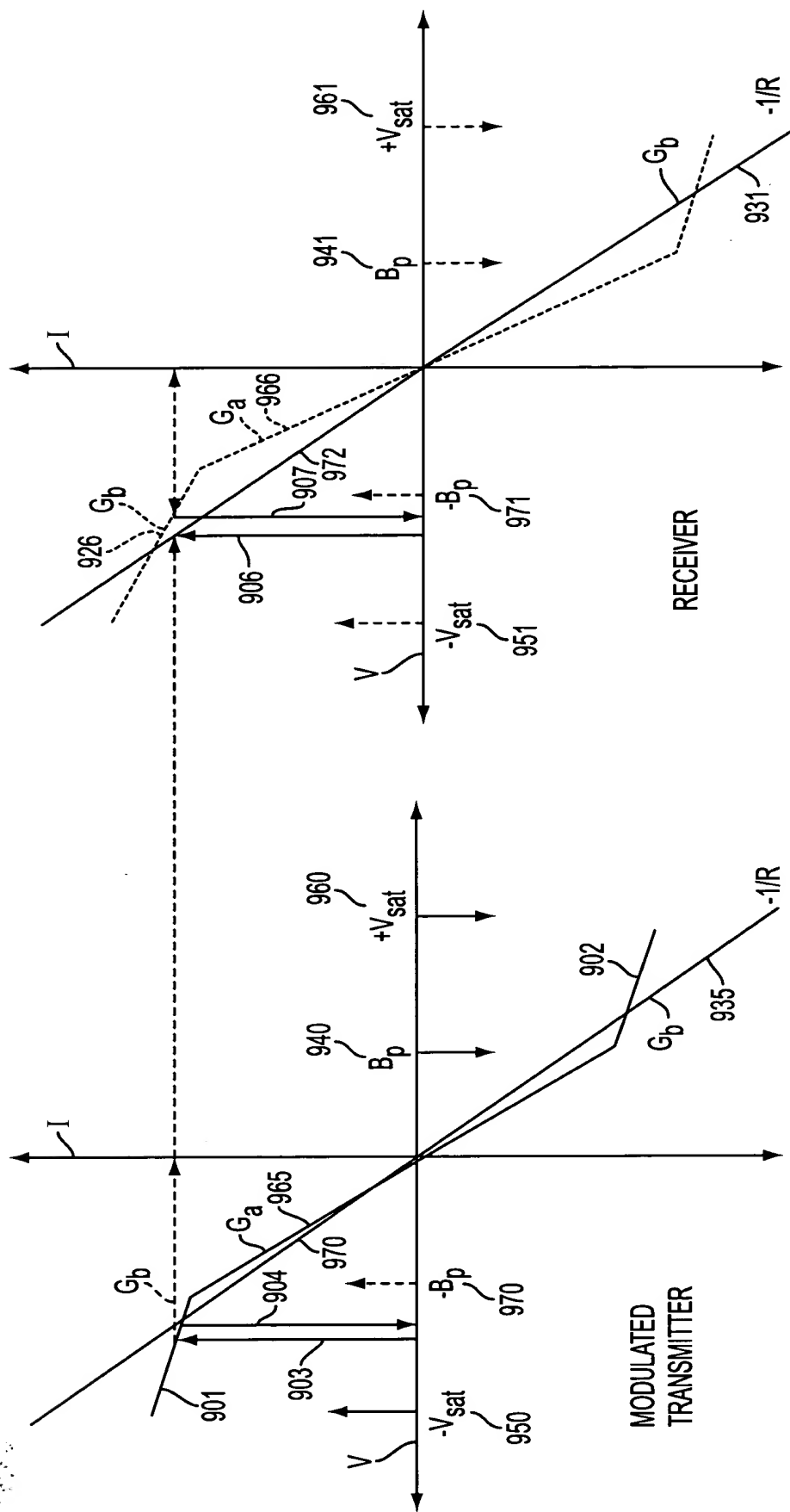


FIG. 9B

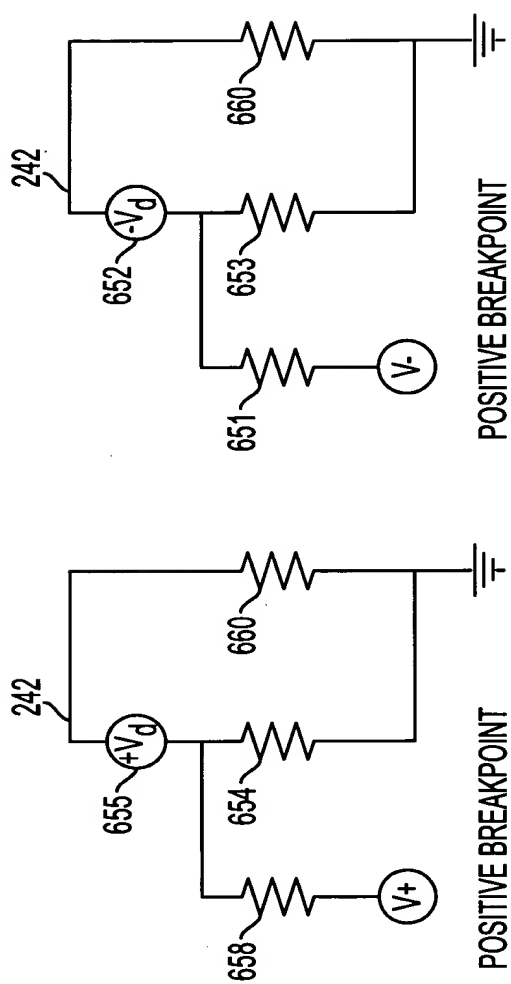
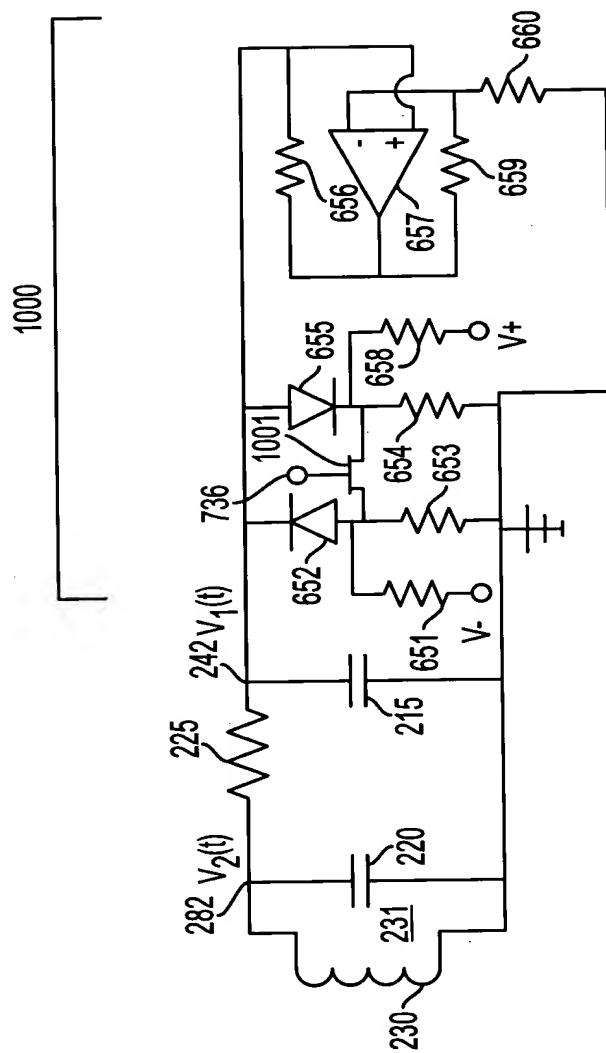
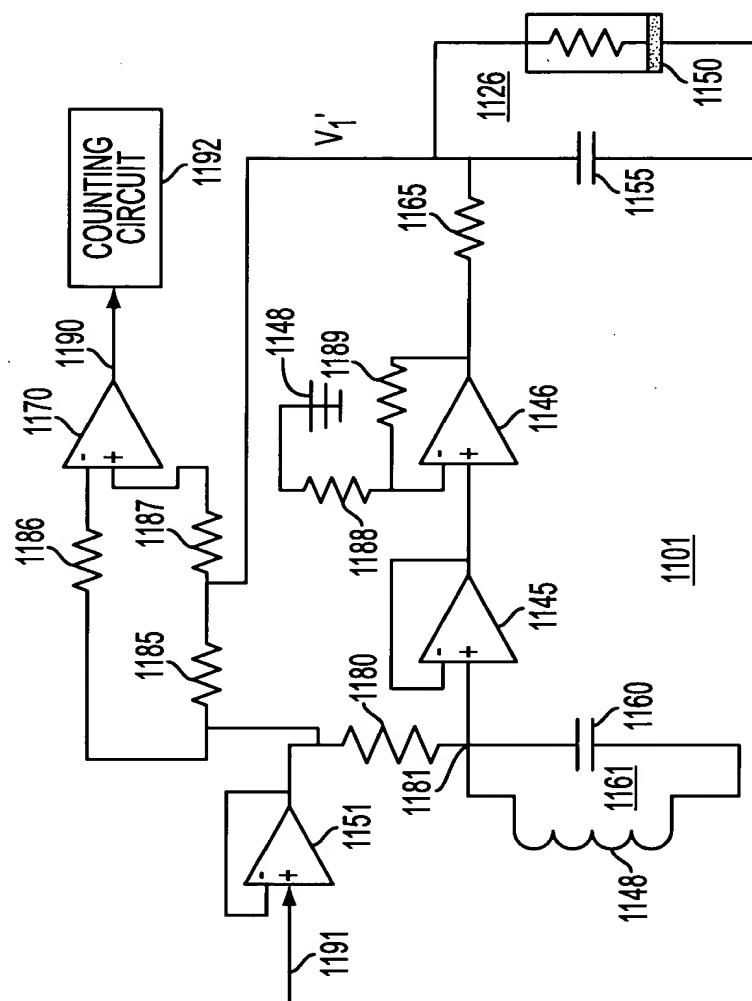


FIG. 9C



**FIG. 10**



**FIG. 11**

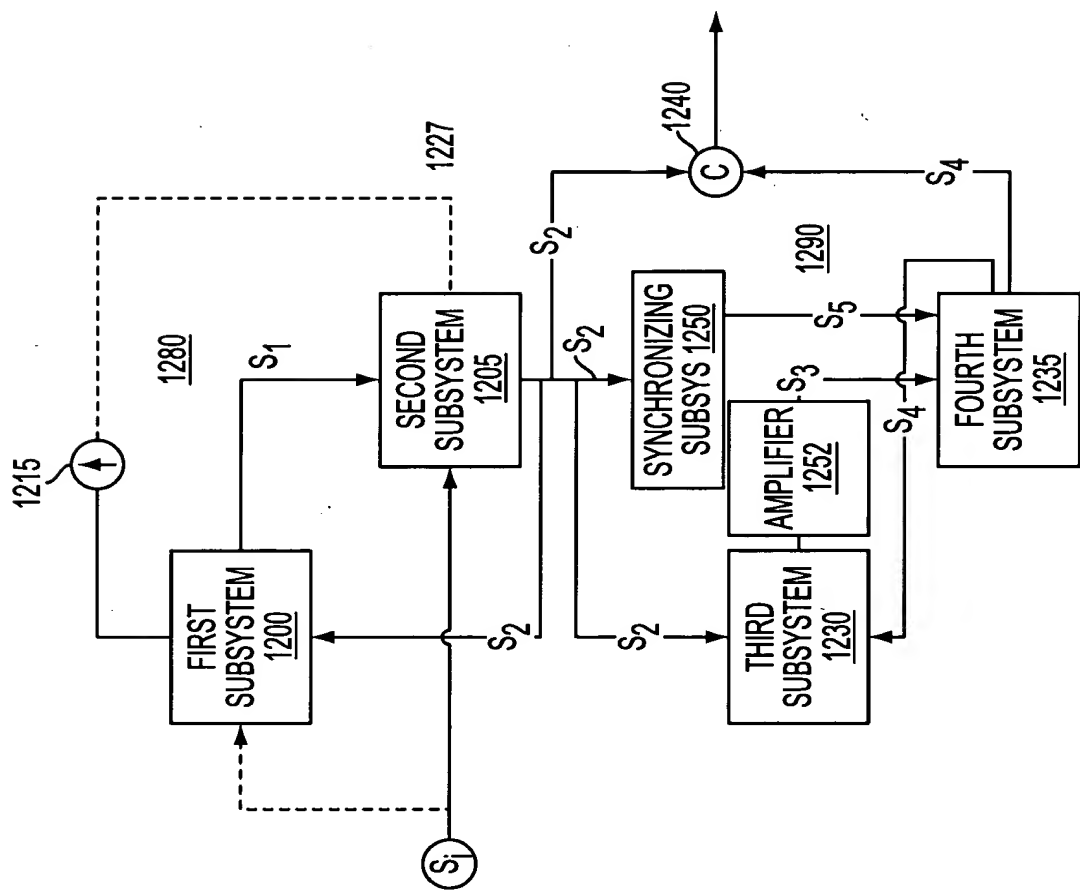


FIG. 12

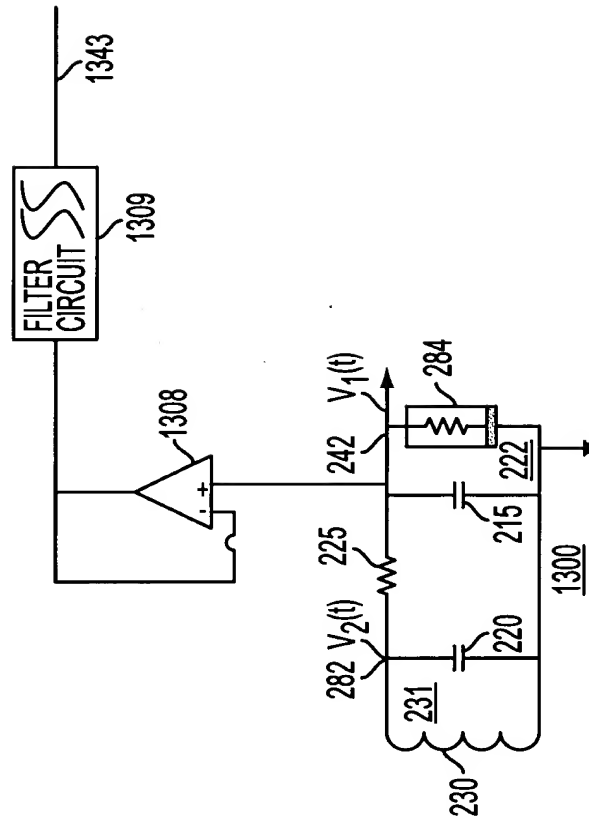


FIG. 13



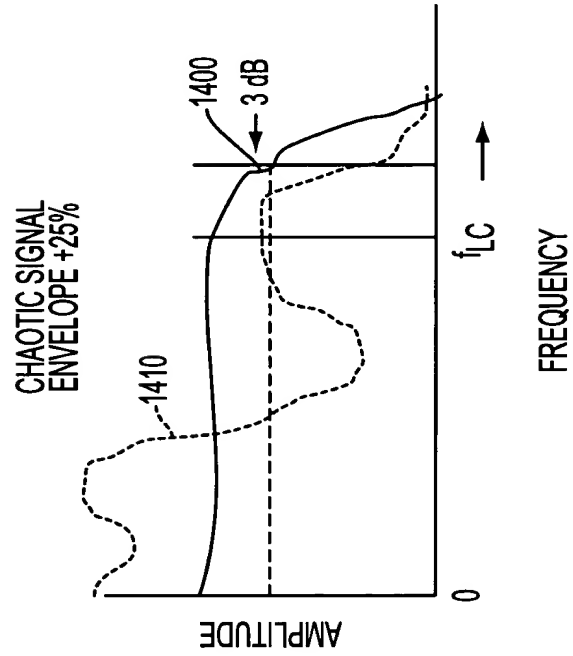


FIG. 14A

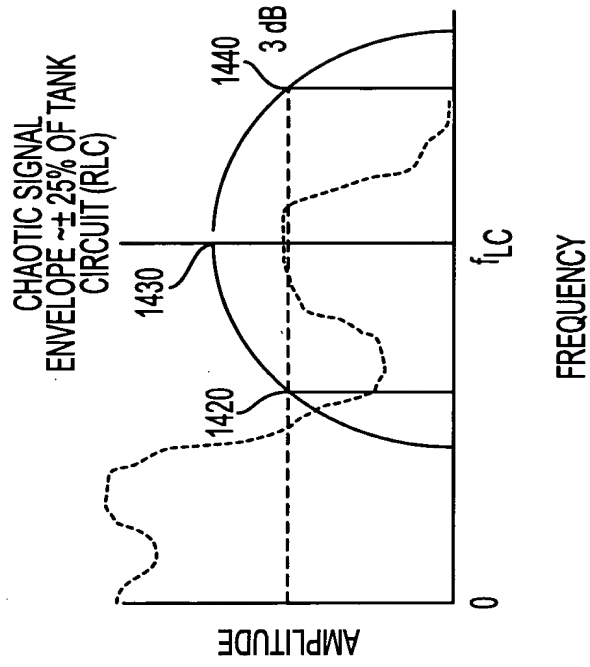


FIG. 14B

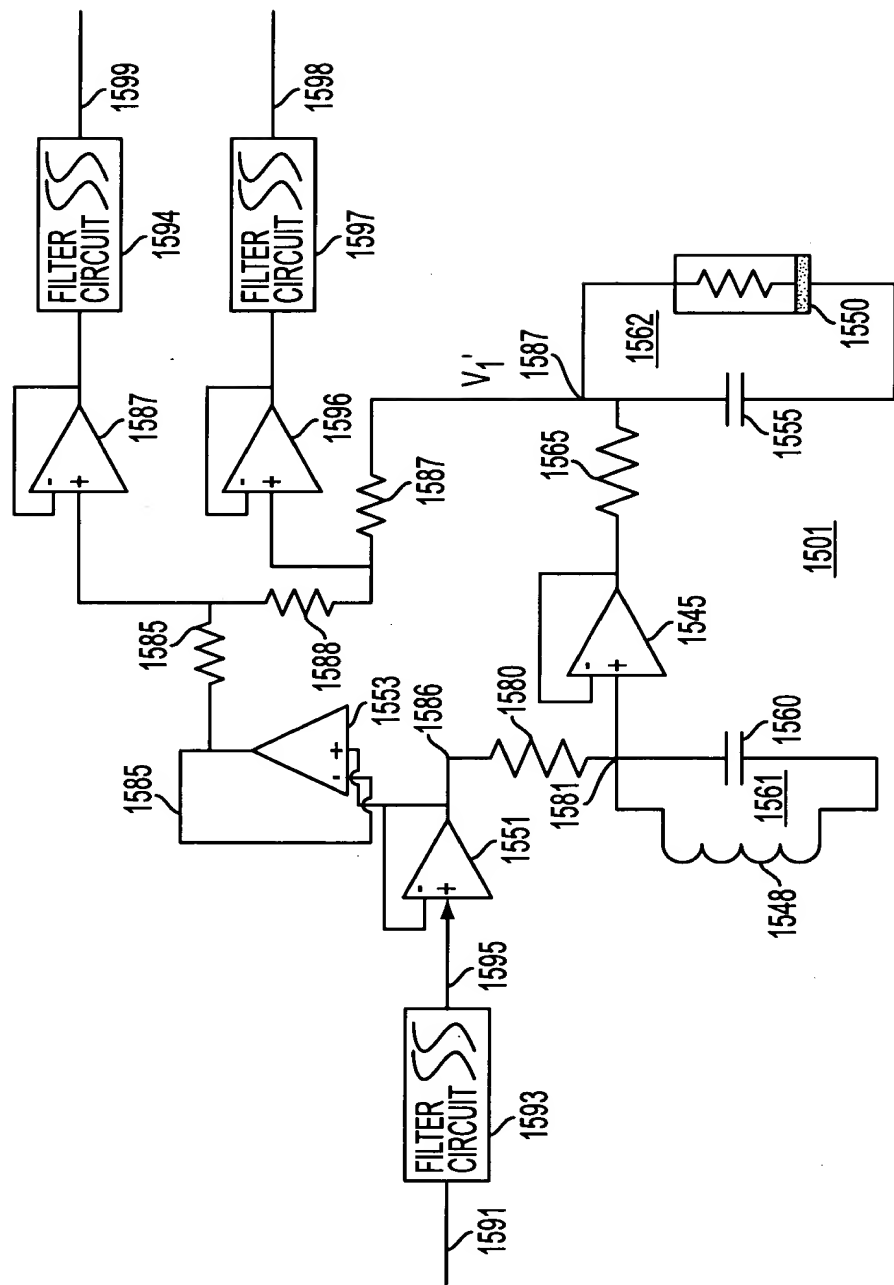


FIG. 15

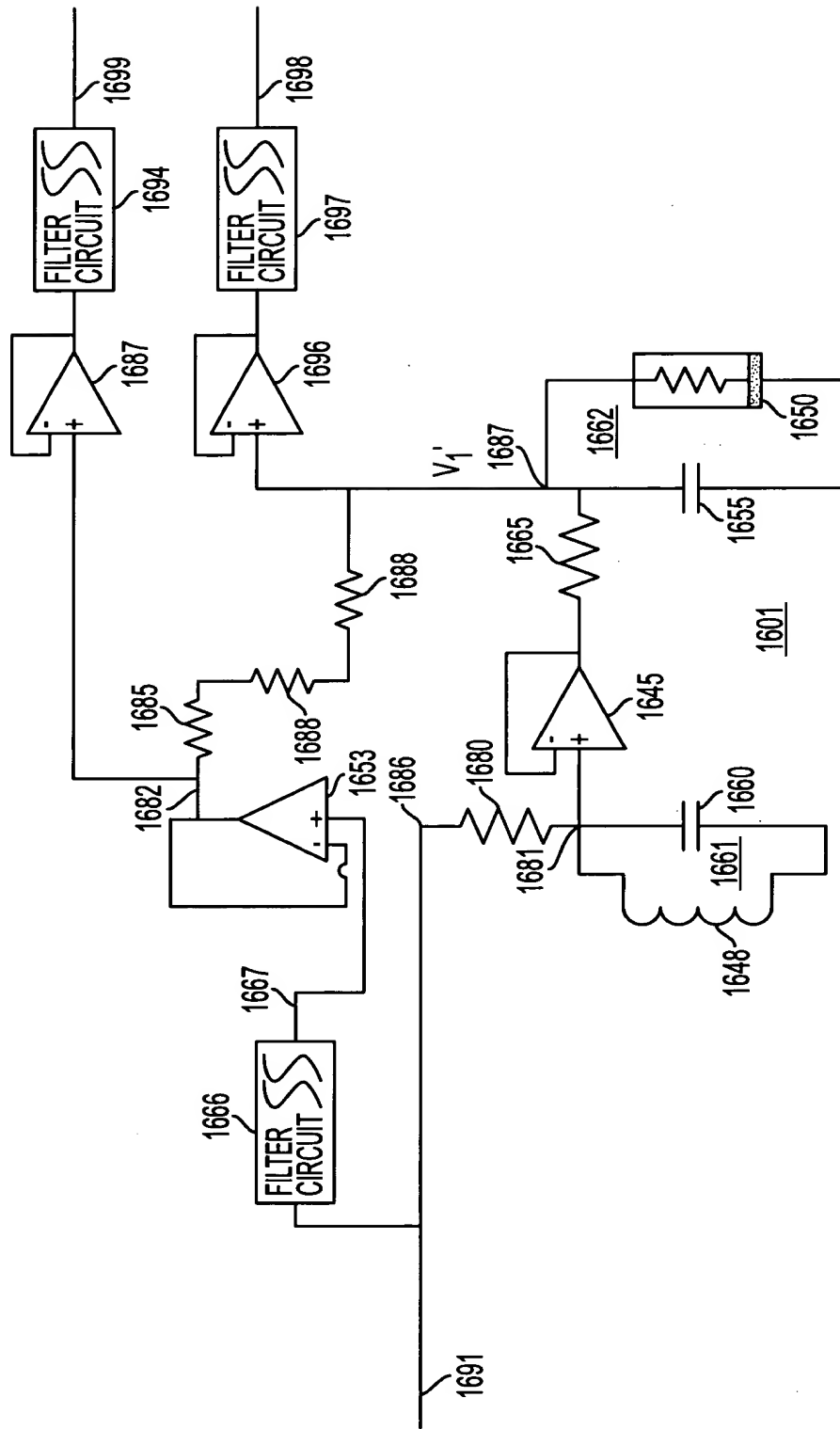


FIG. 16

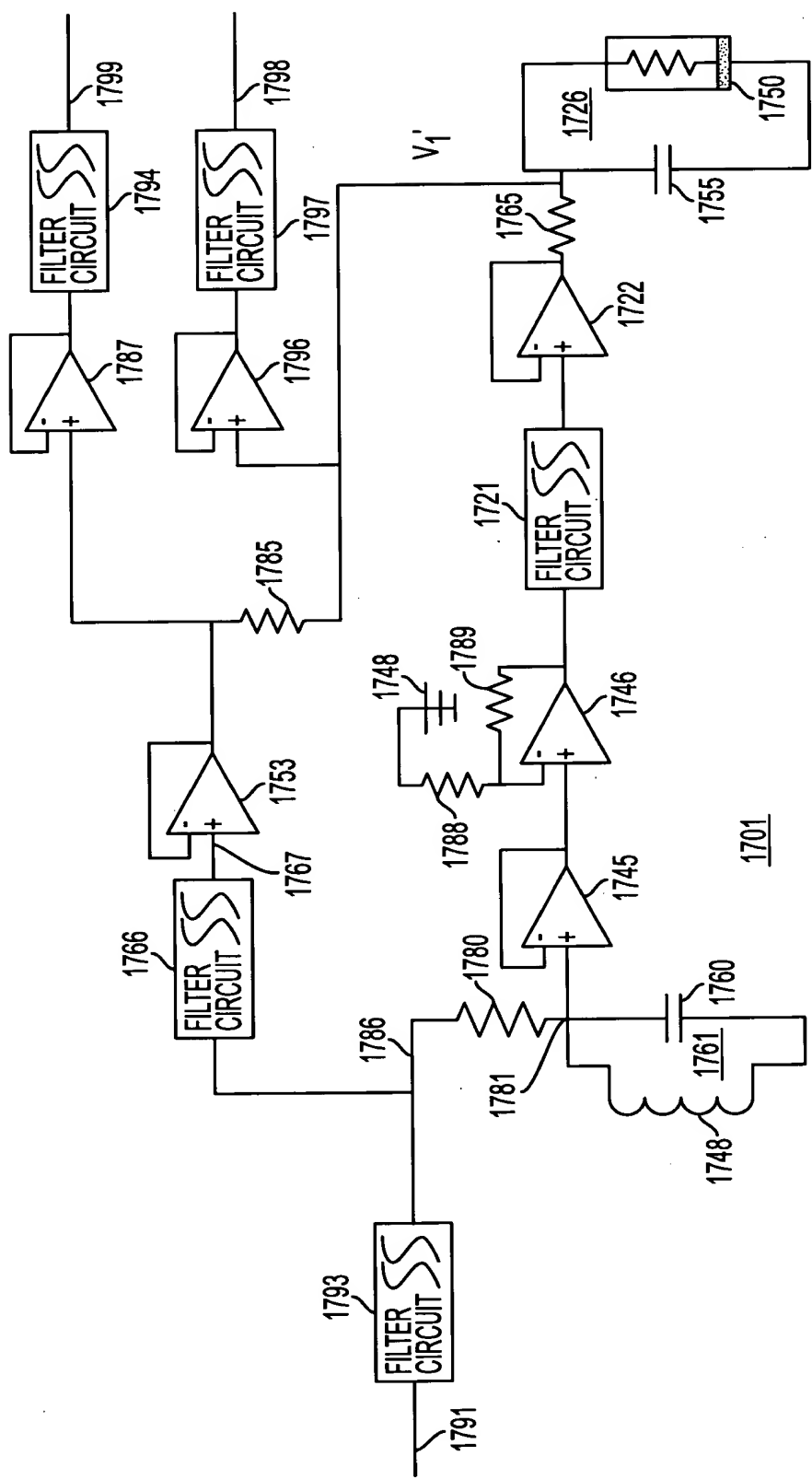


FIG. 17

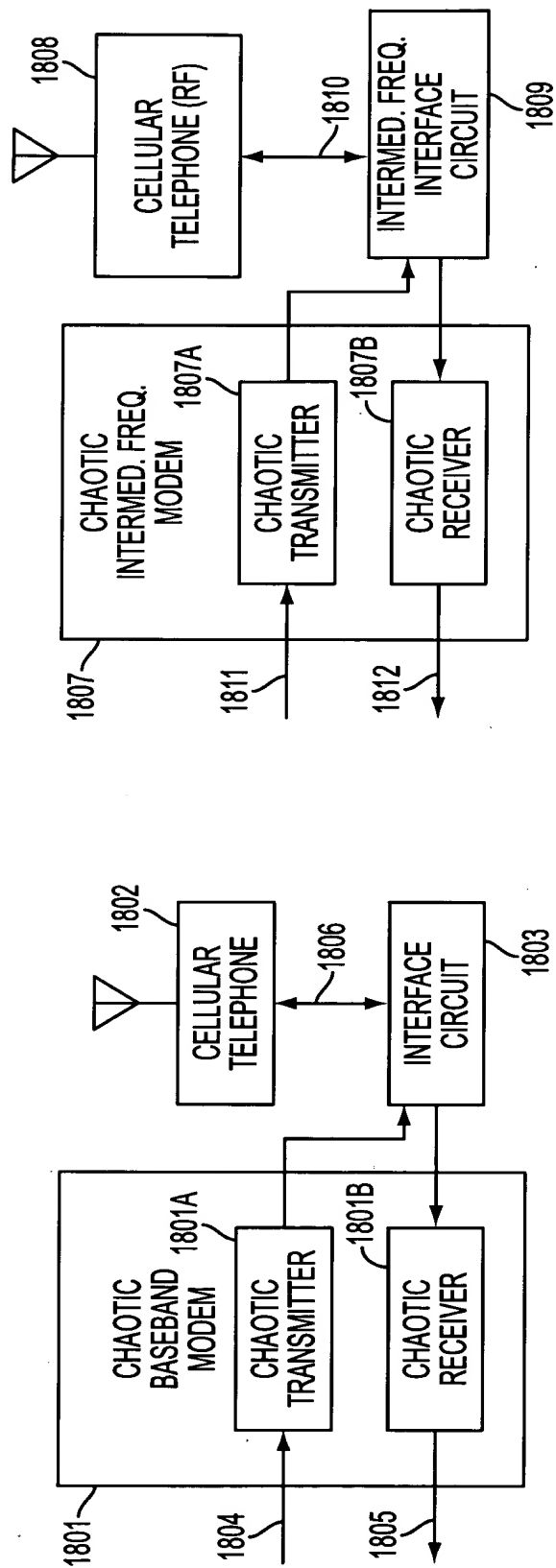


FIG. 18A

FIG. 18B

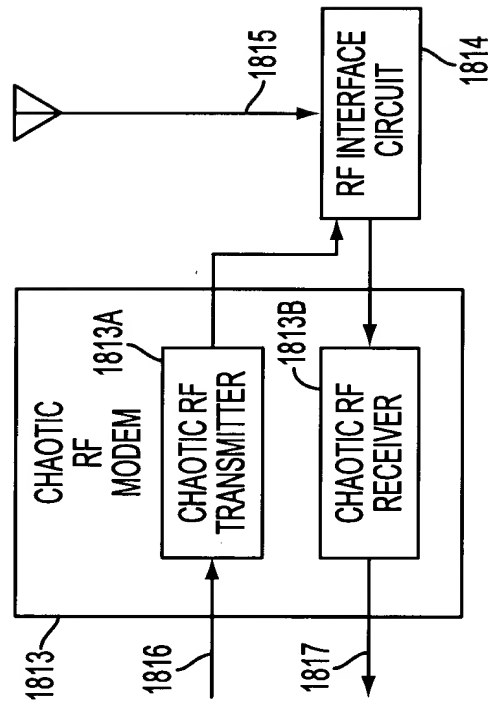


FIG. 18C

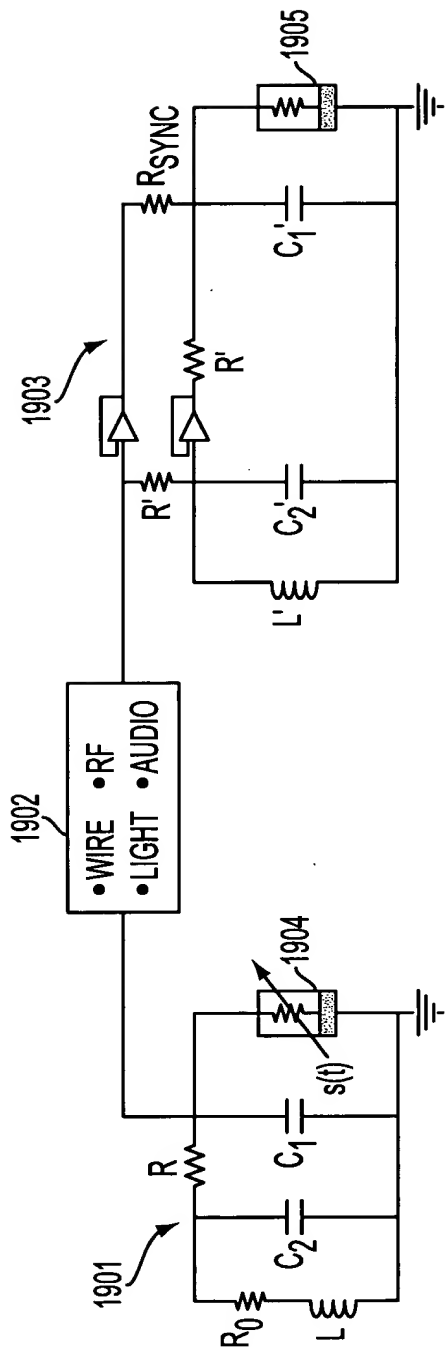


FIG. 19A

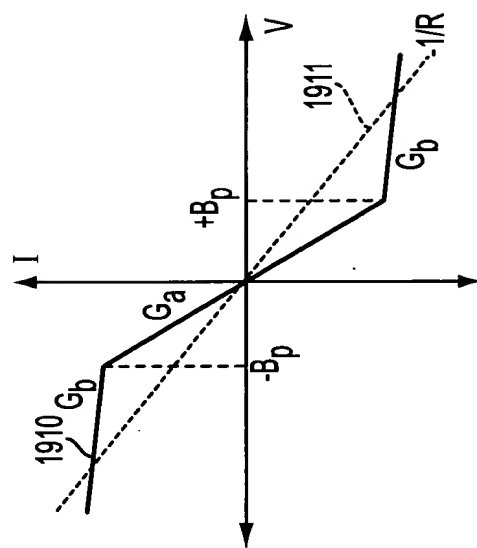


FIG. 19B

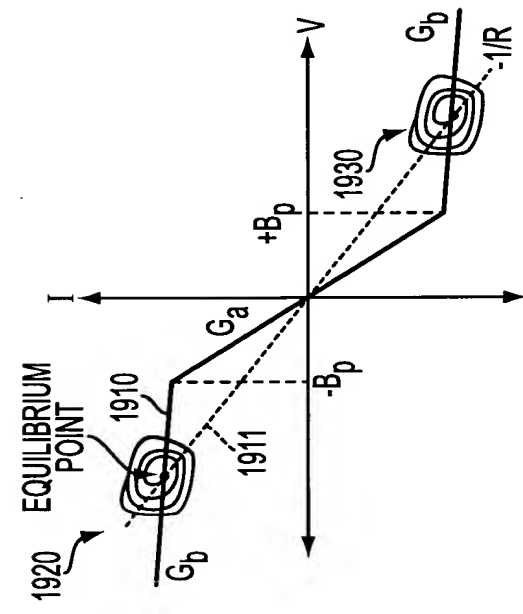


FIG. 19C

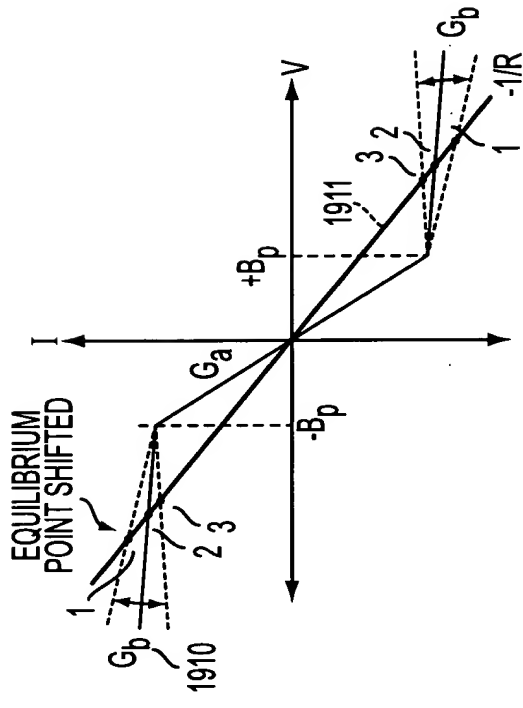


FIG. 19D

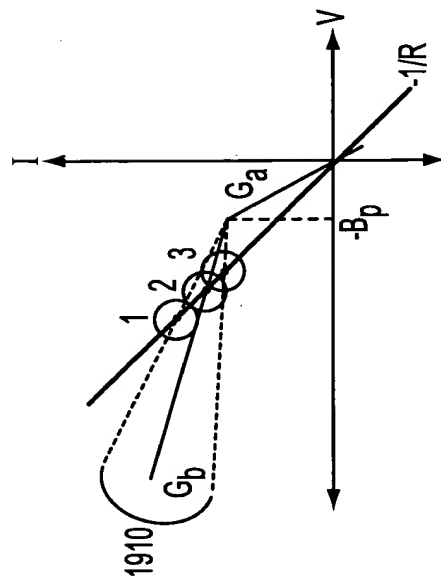


FIG. 19E

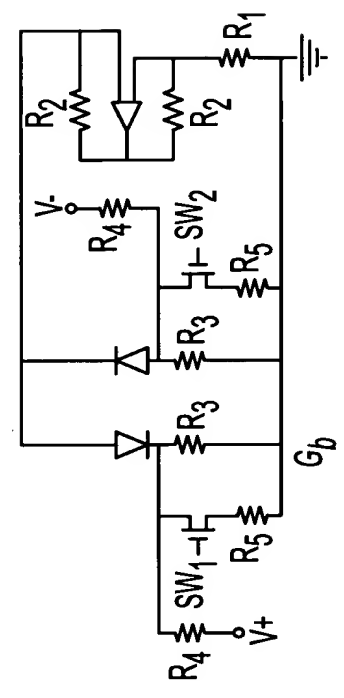


FIG. 19F

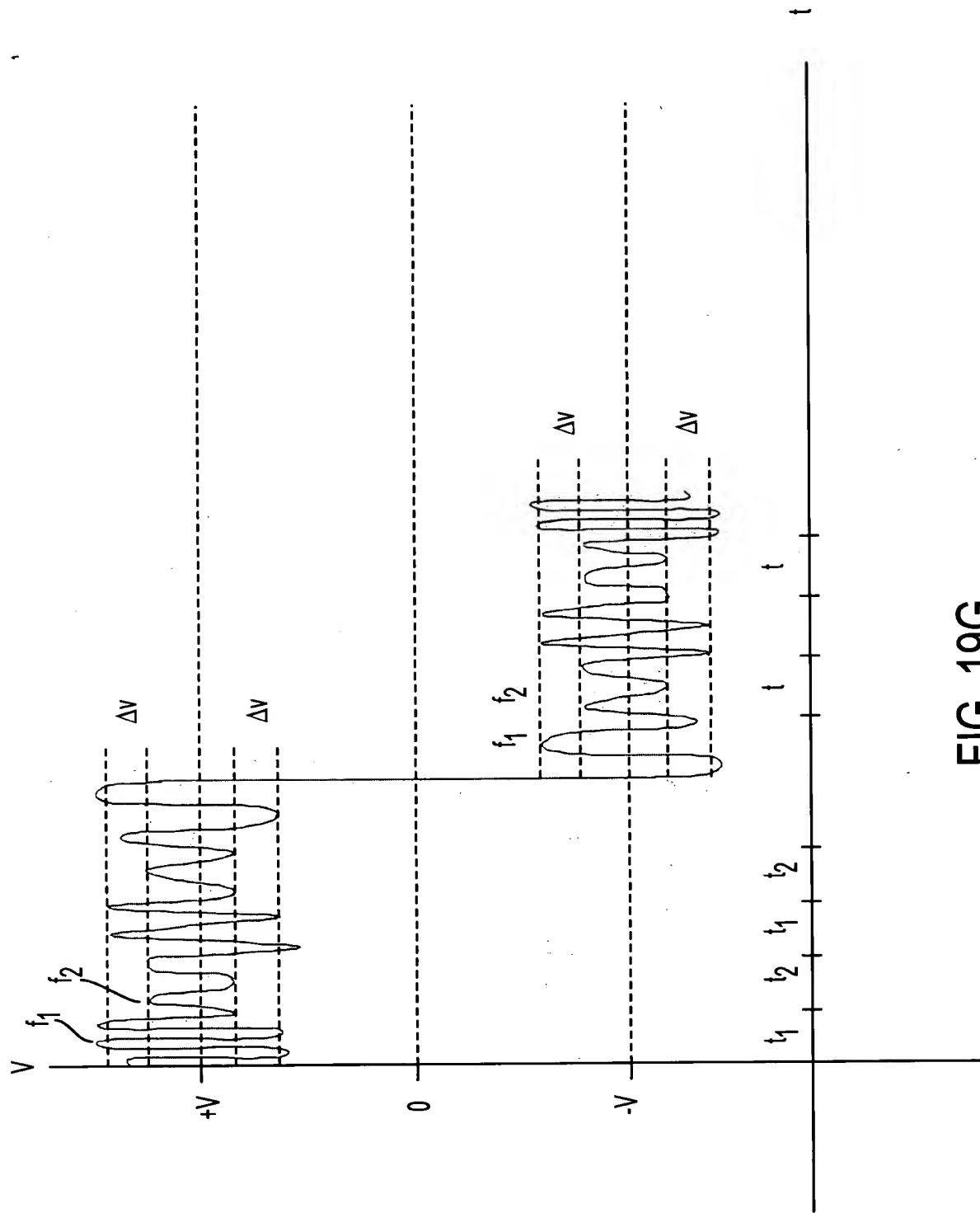


FIG. 19G



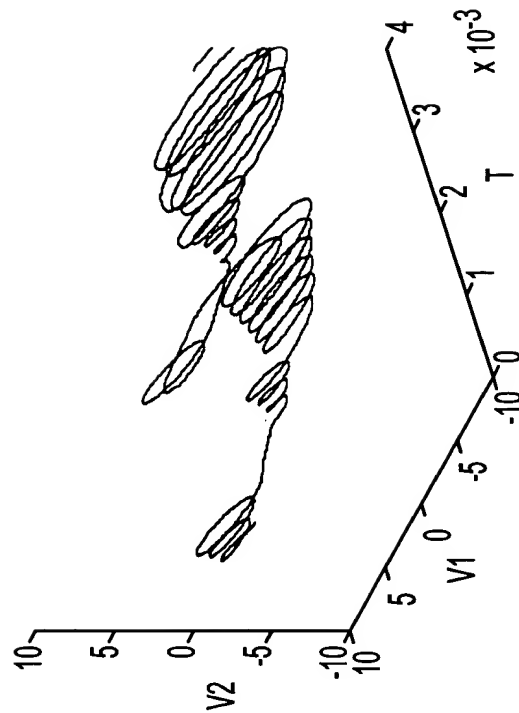


FIG. 20B

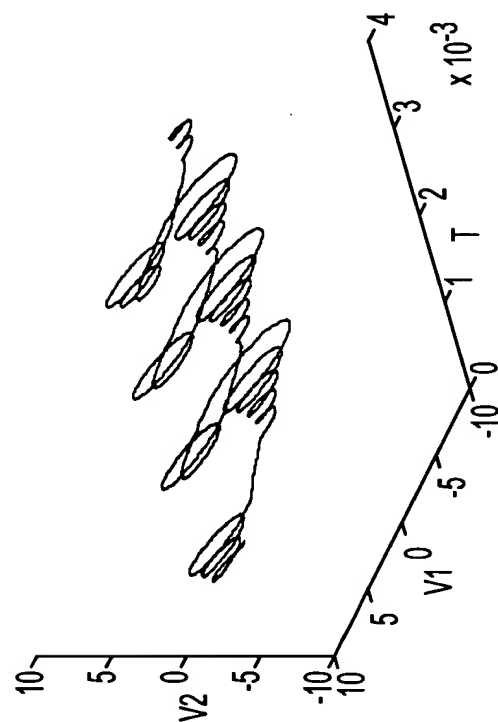


FIG. 20A

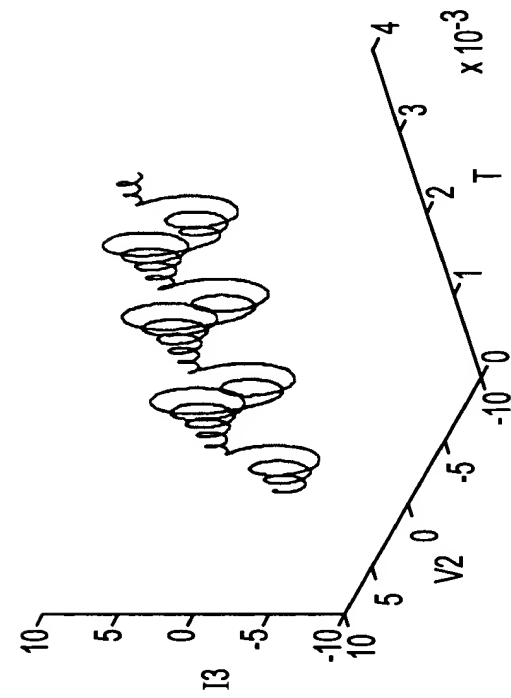


FIG. 20C

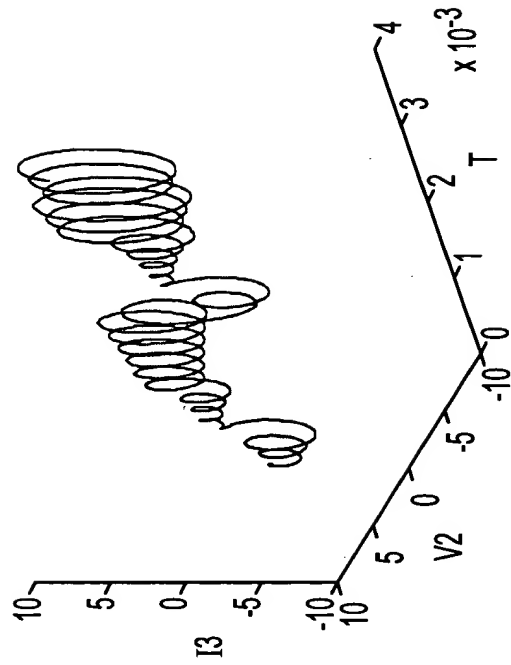


FIG. 20D

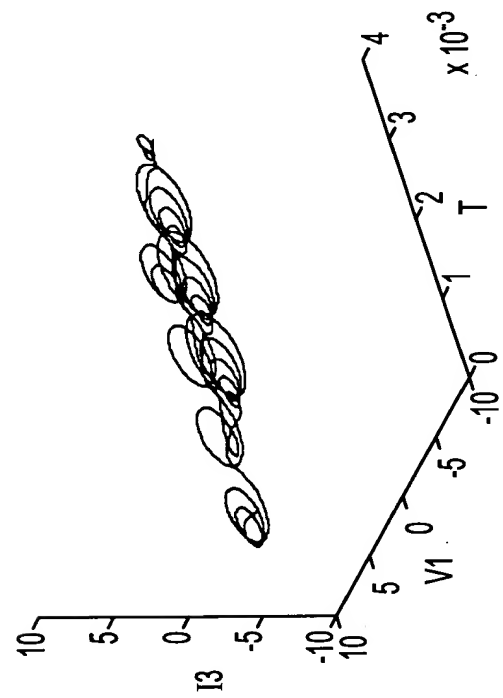


FIG. 20E

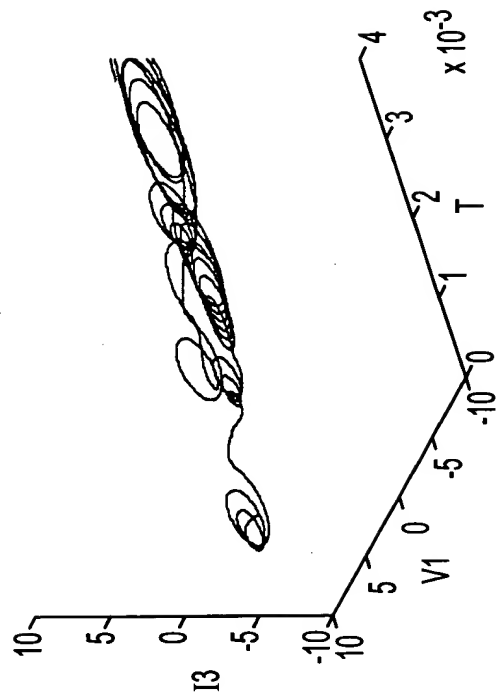


FIG. 20F

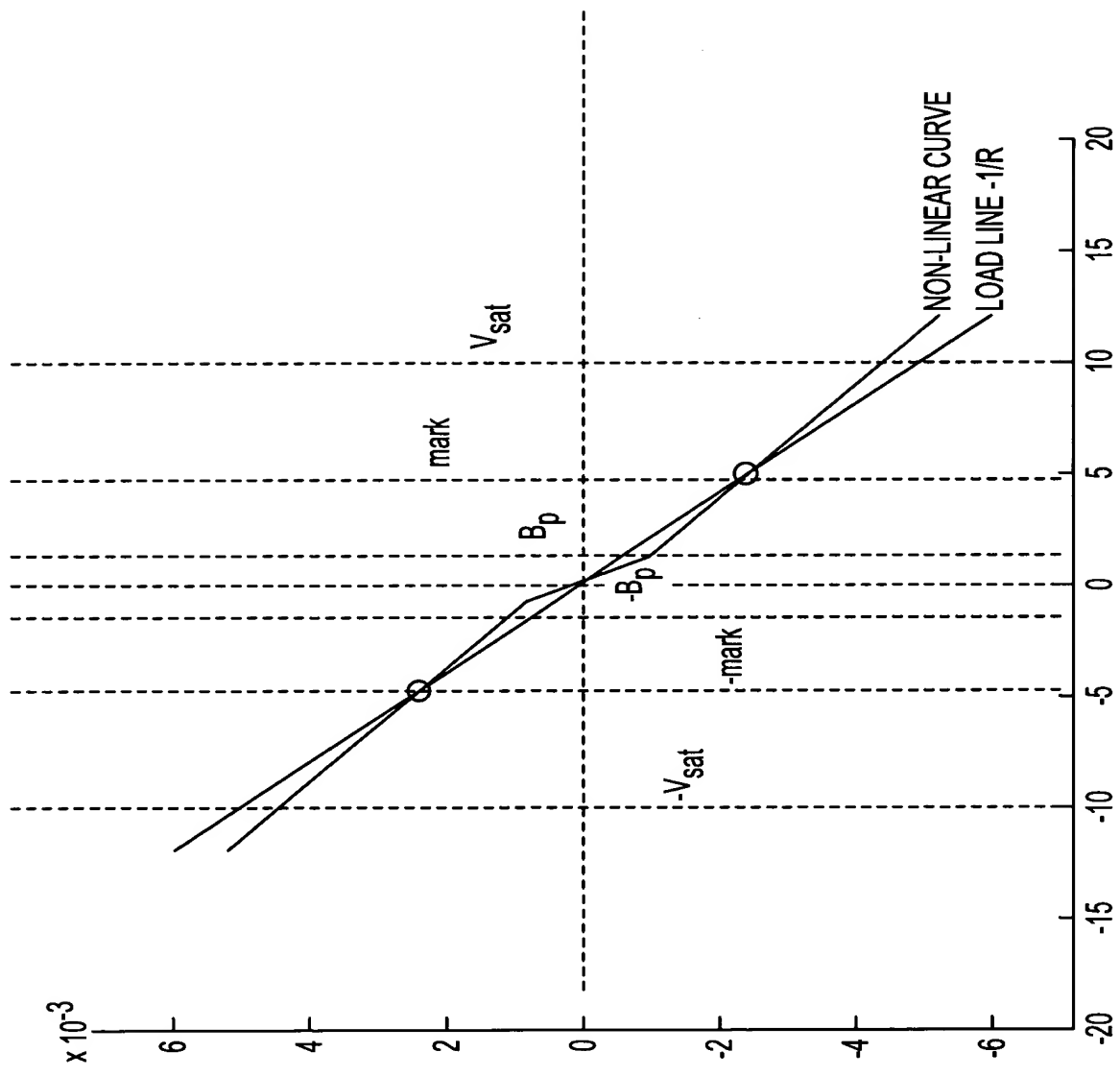


FIG. 21A

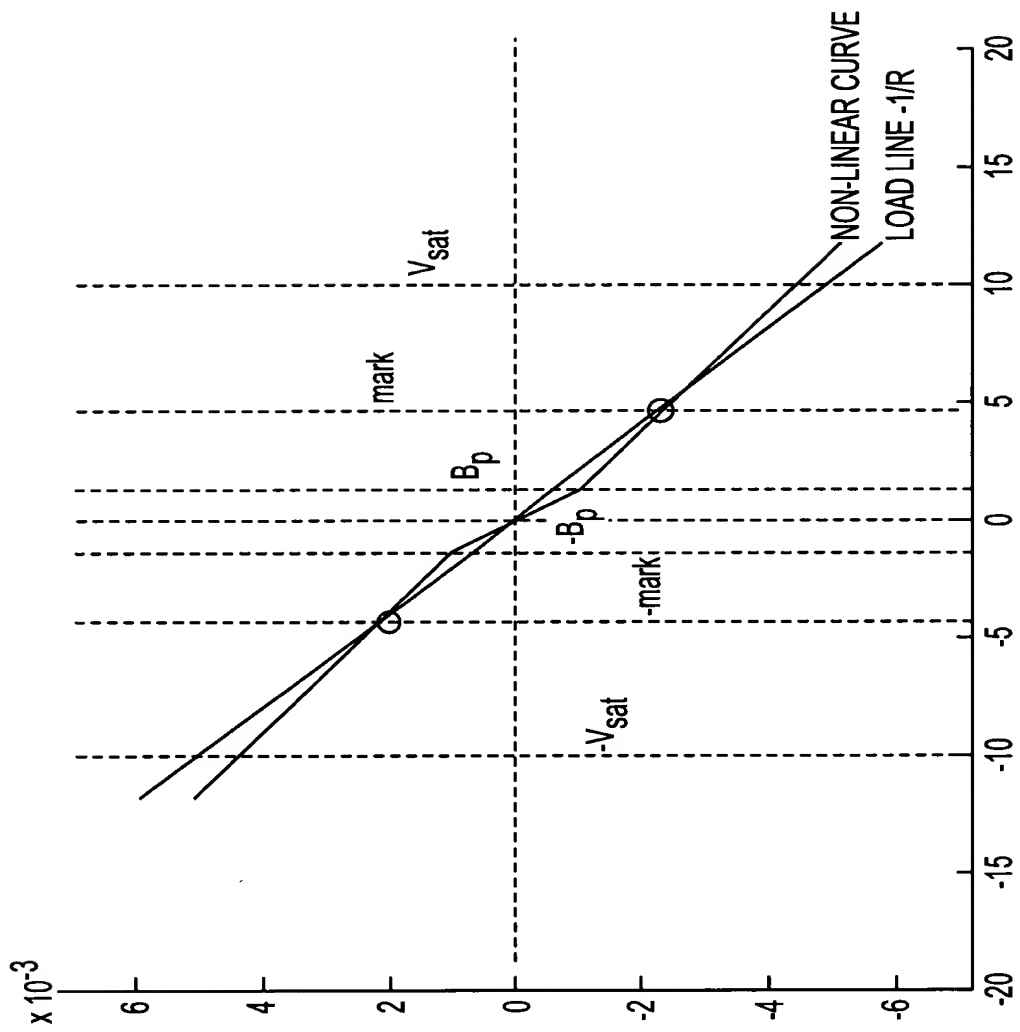


FIG. 21B

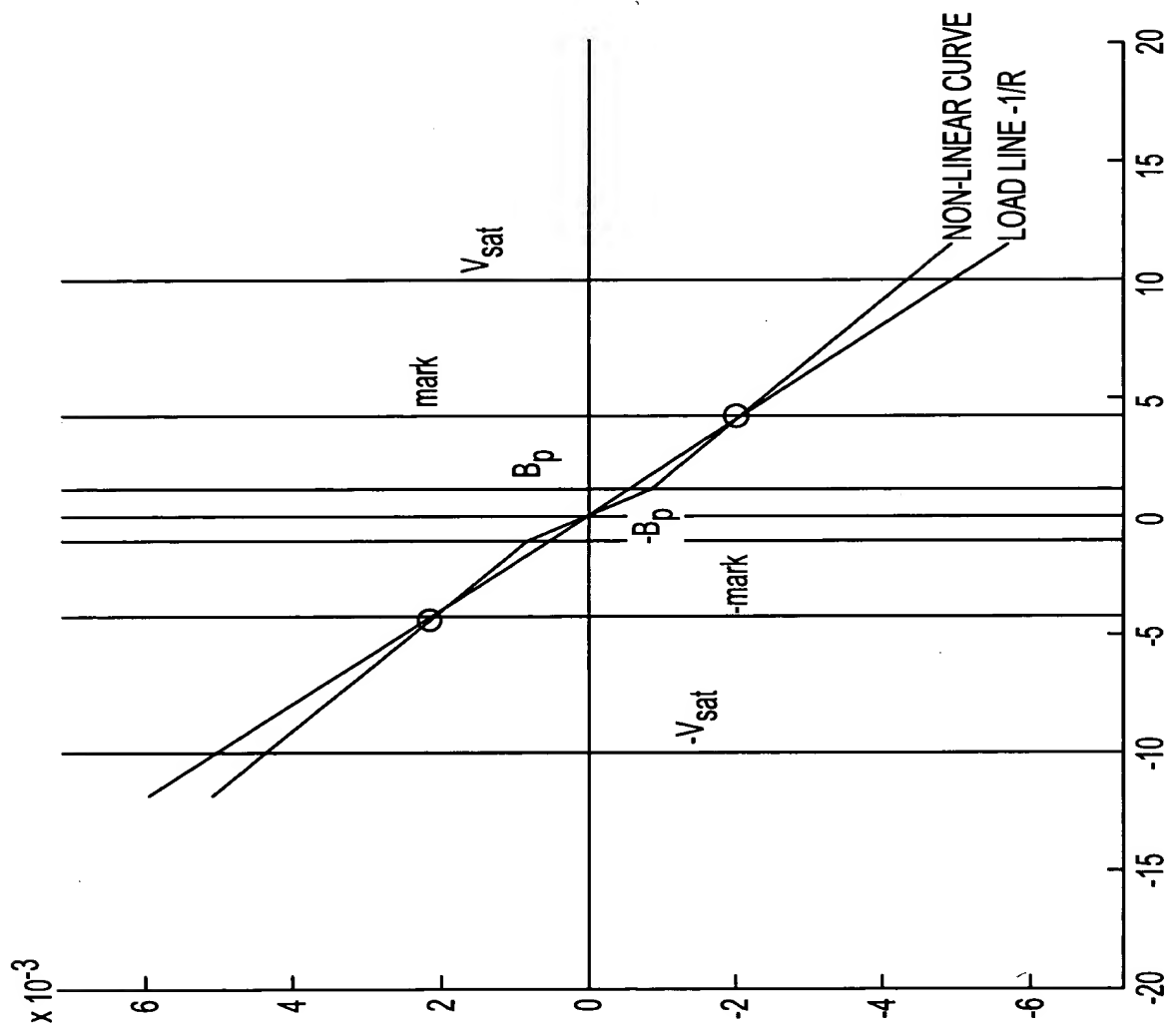


FIG. 21C

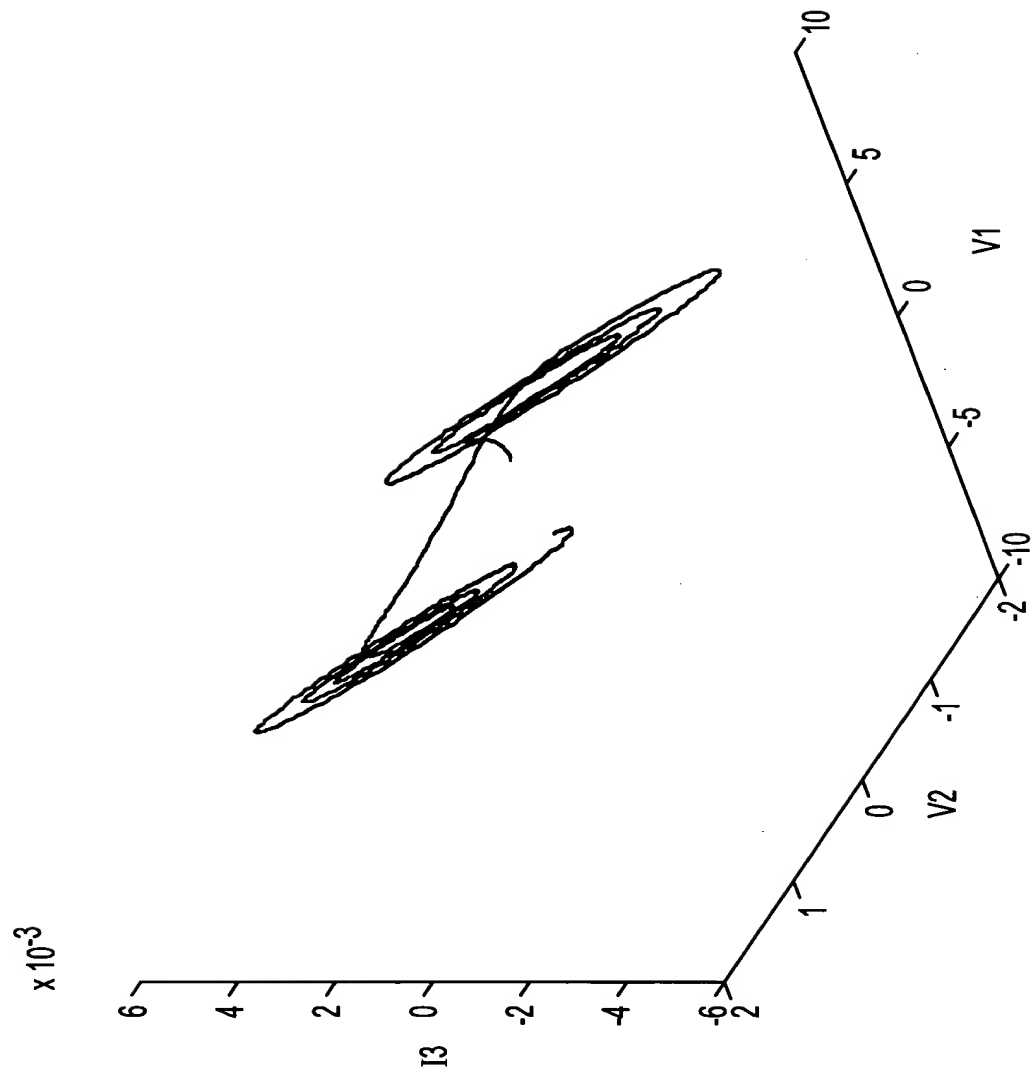


FIG. 21D

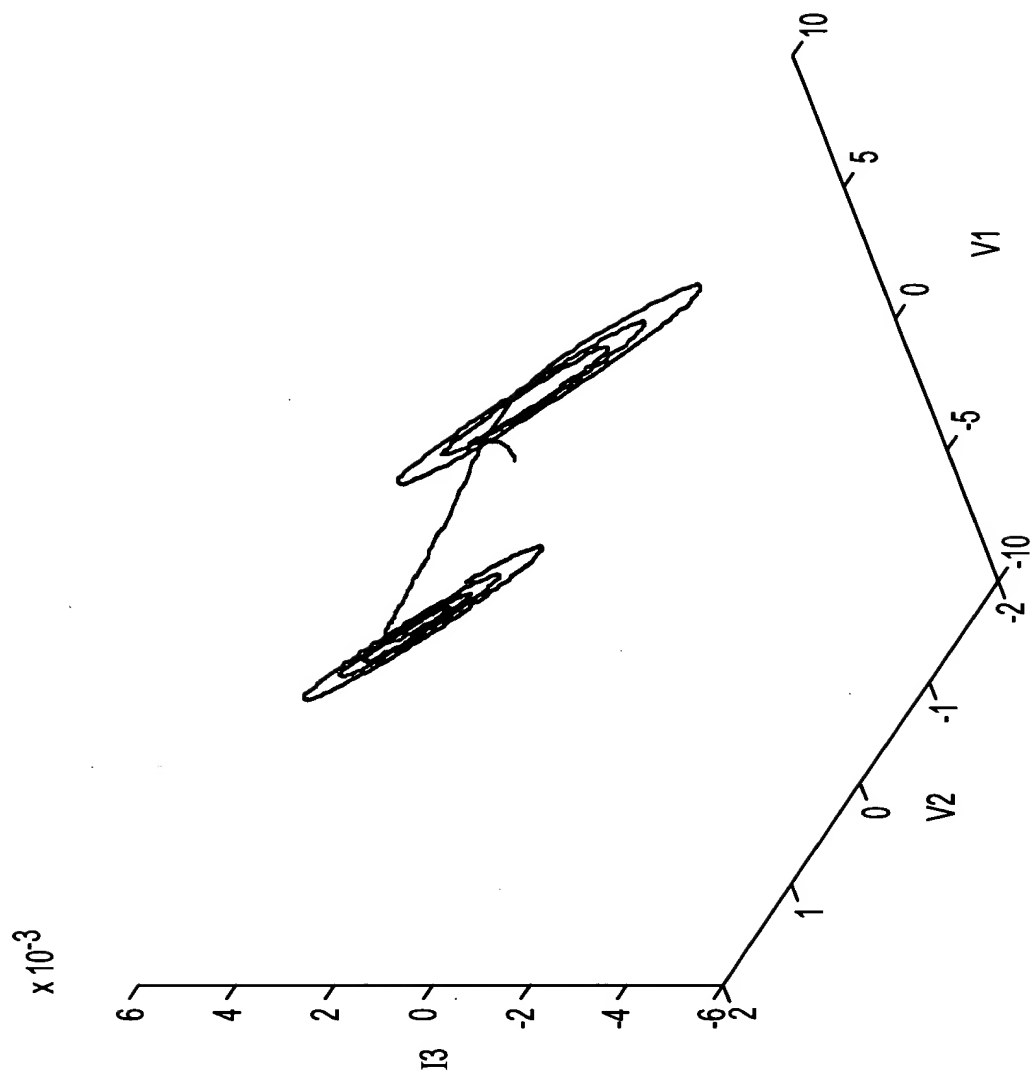


FIG. 21E



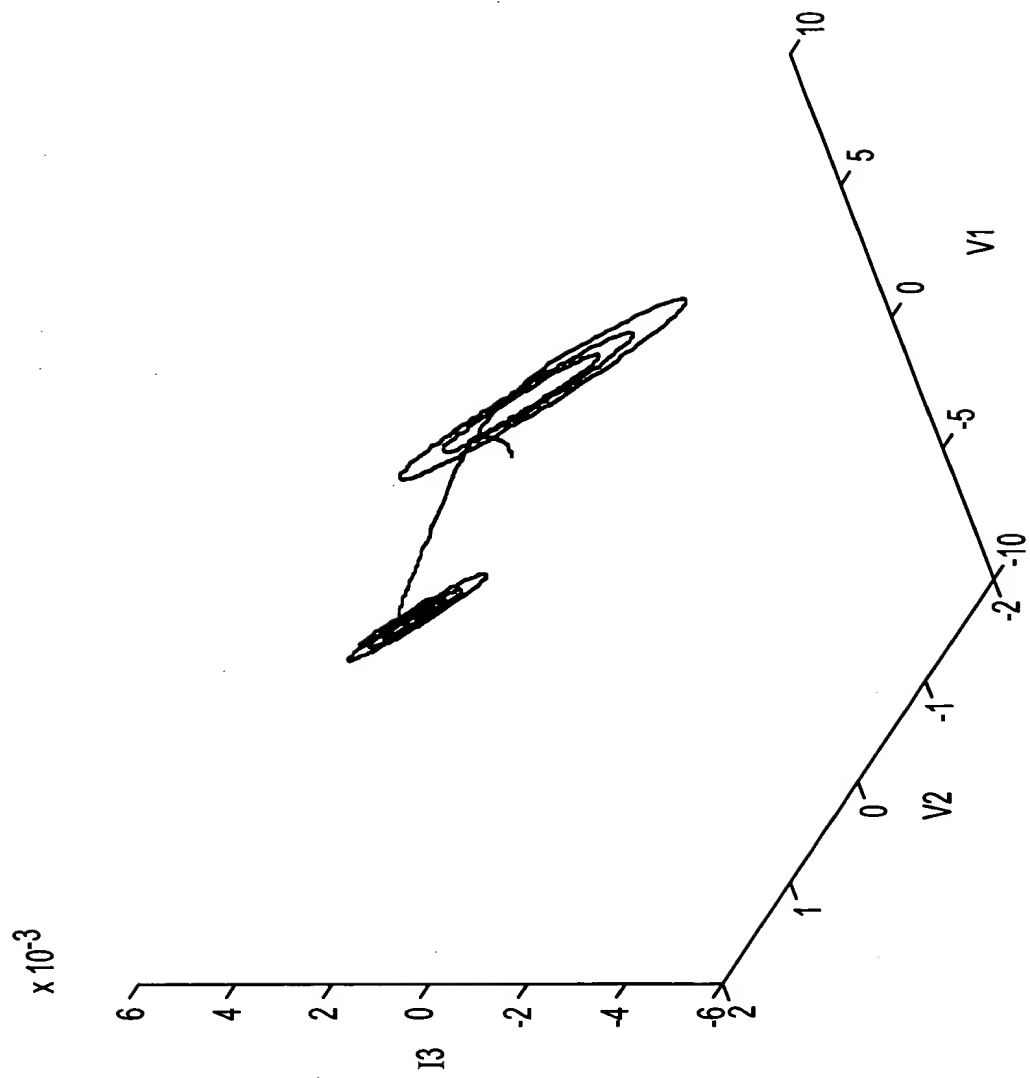


FIG. 21F

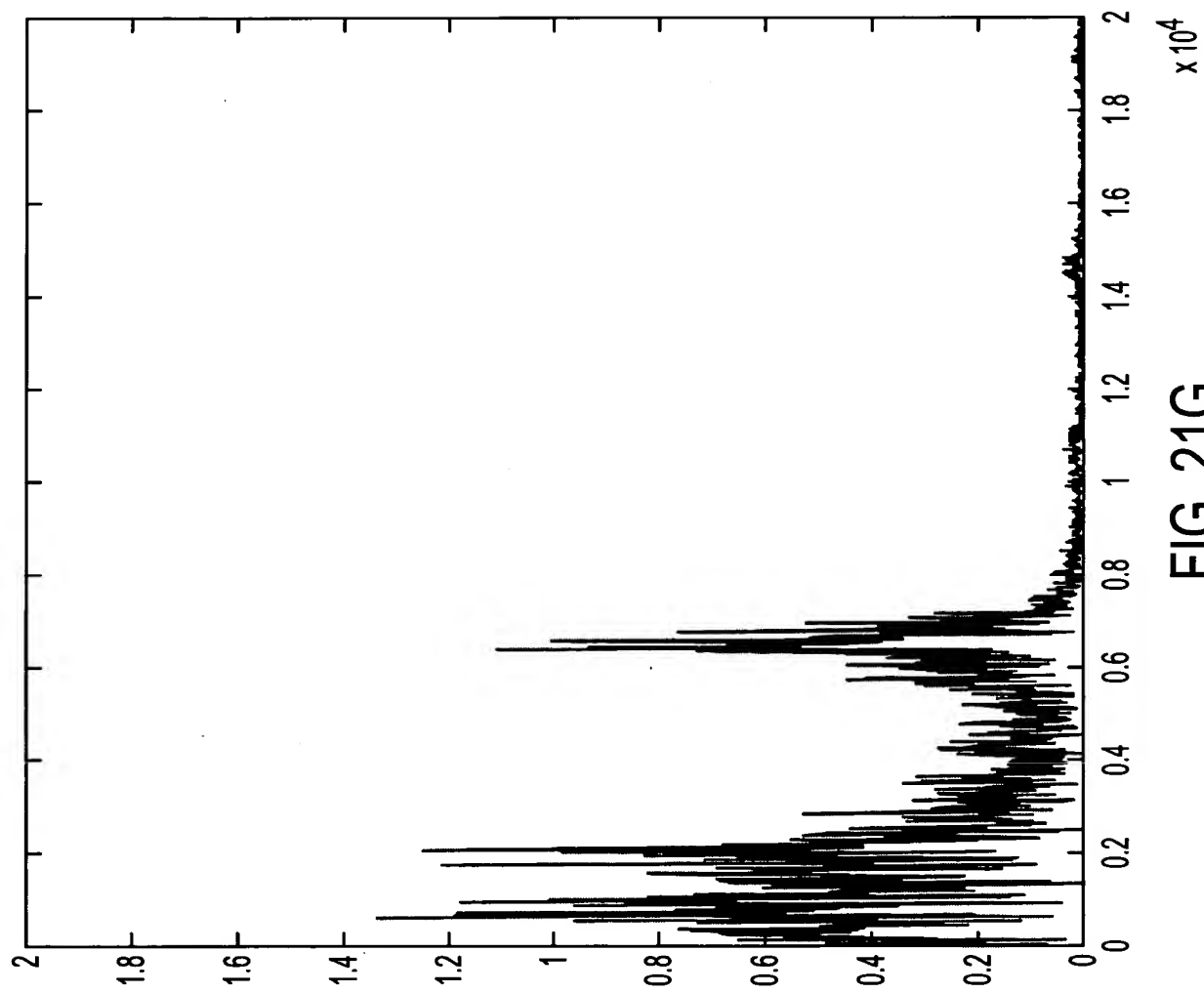


FIG. 21G

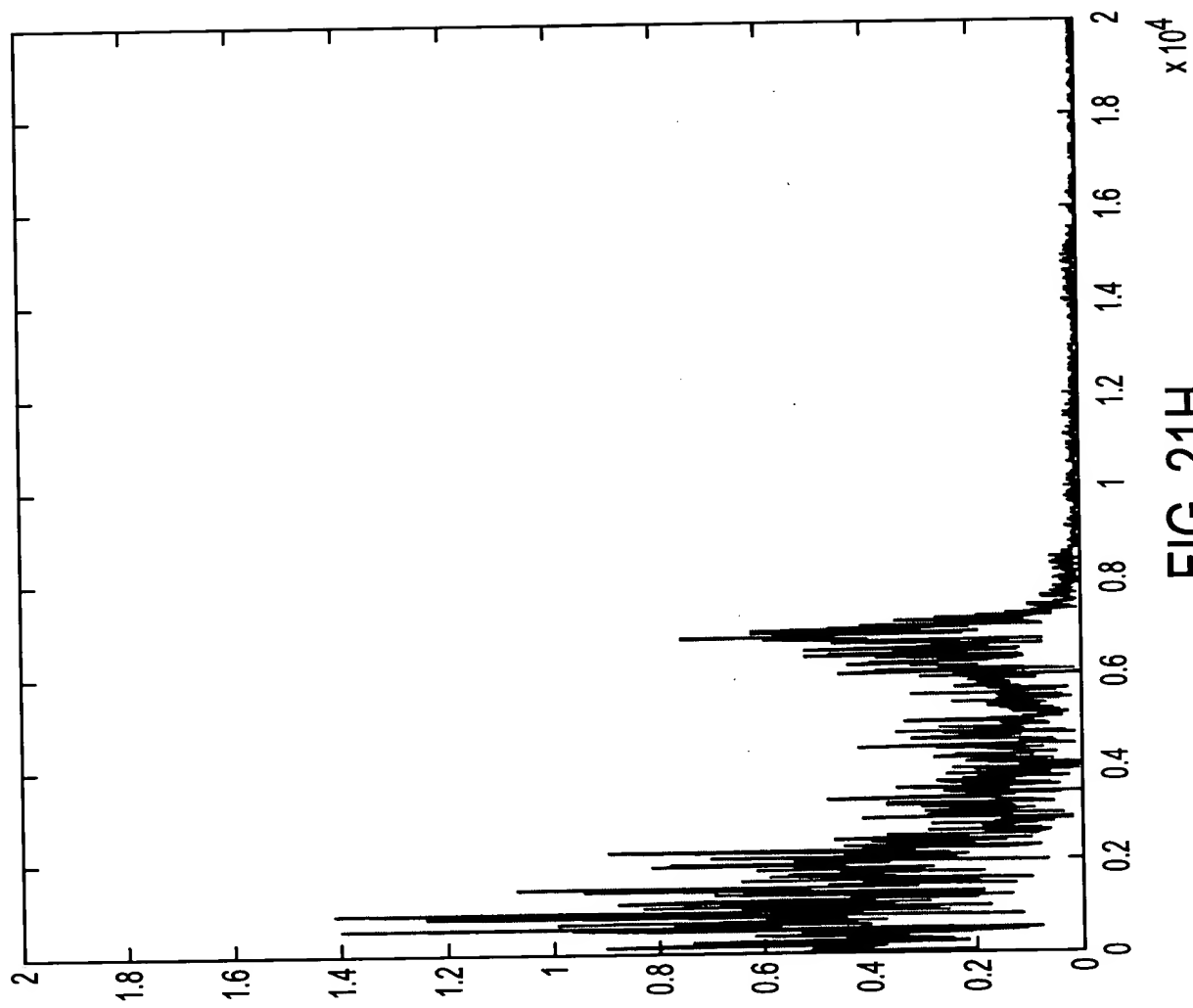


FIG. 21H

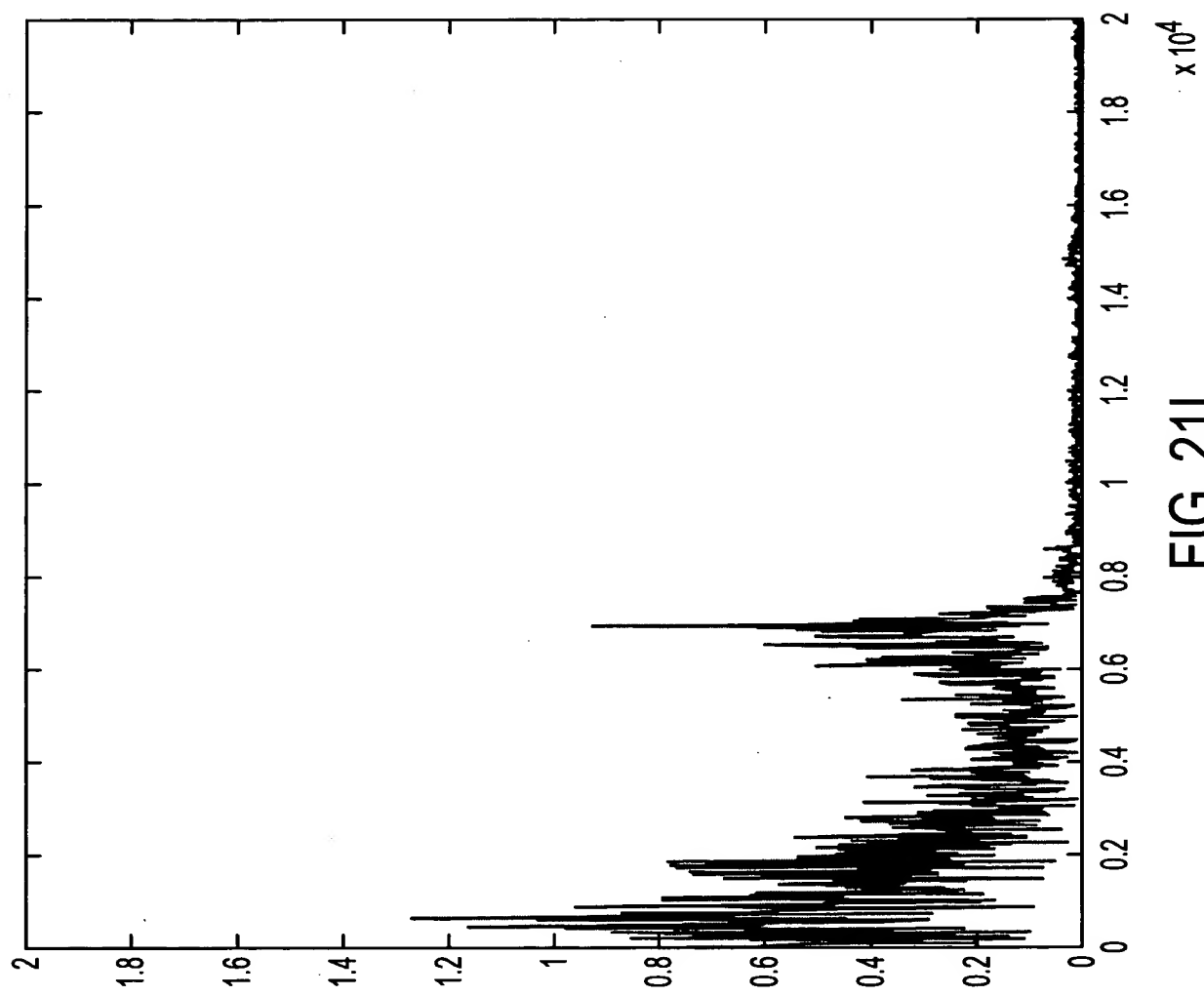


FIG. 21I

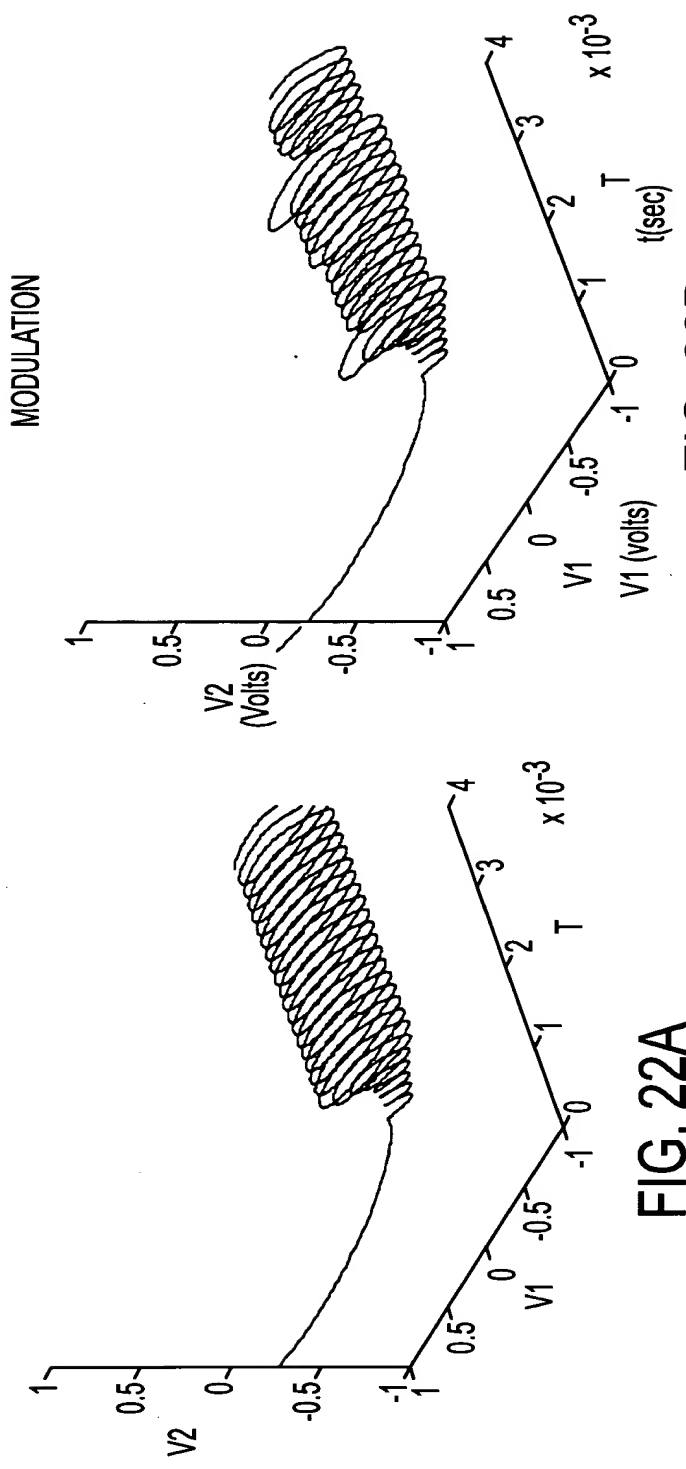


FIG. 22A

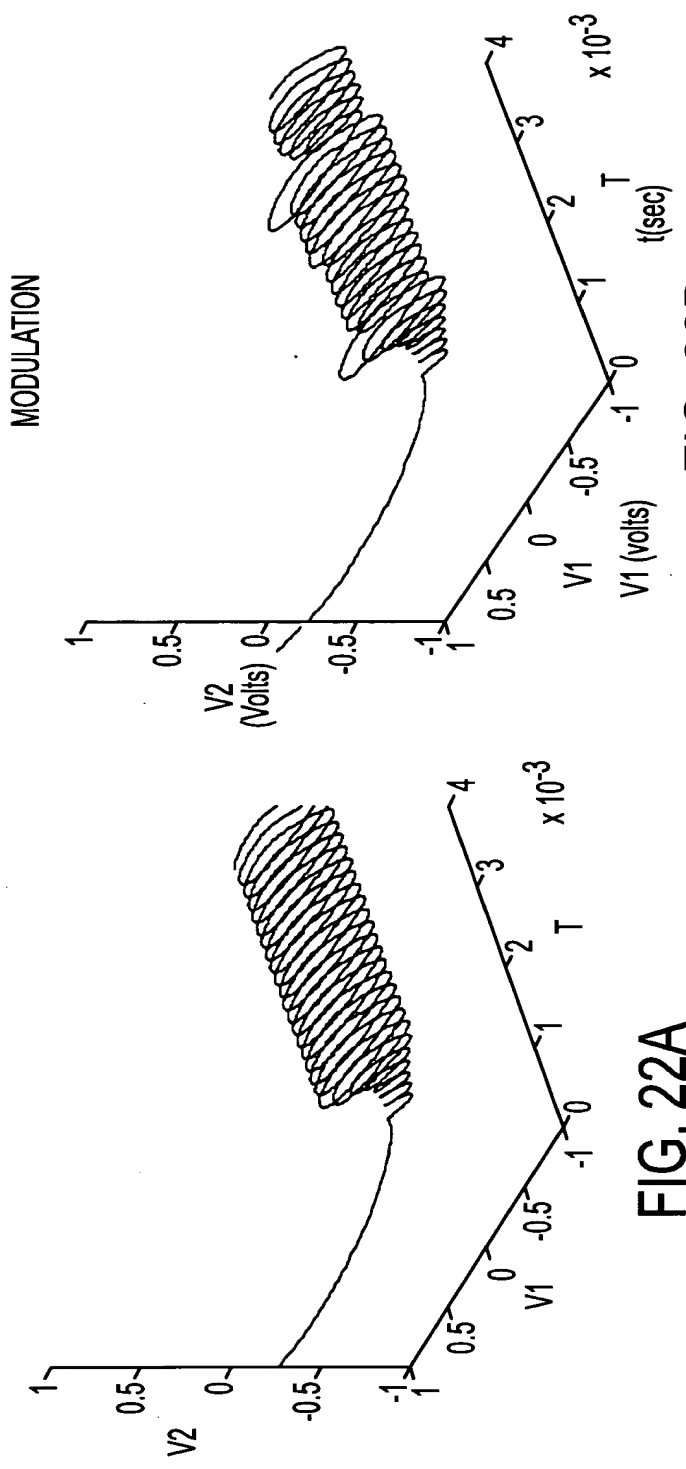


FIG. 22B

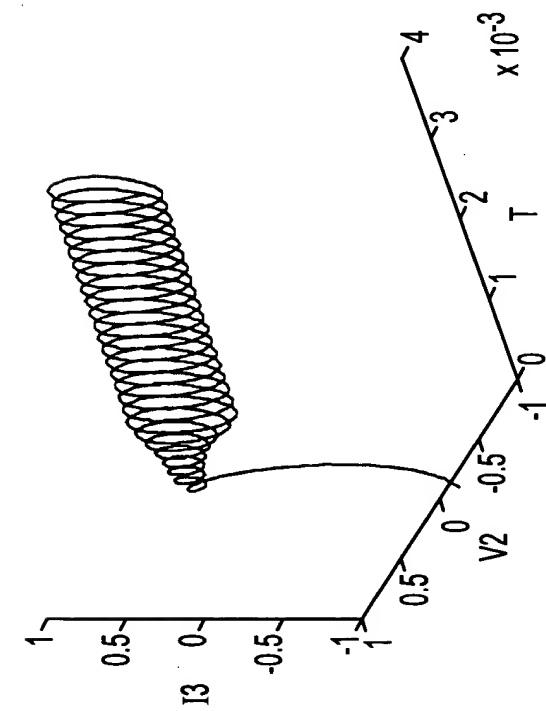


FIG. 22C

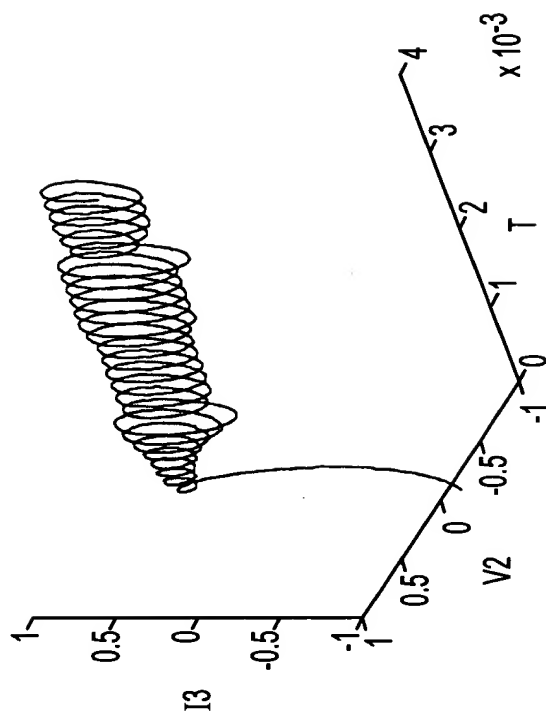


FIG. 22D

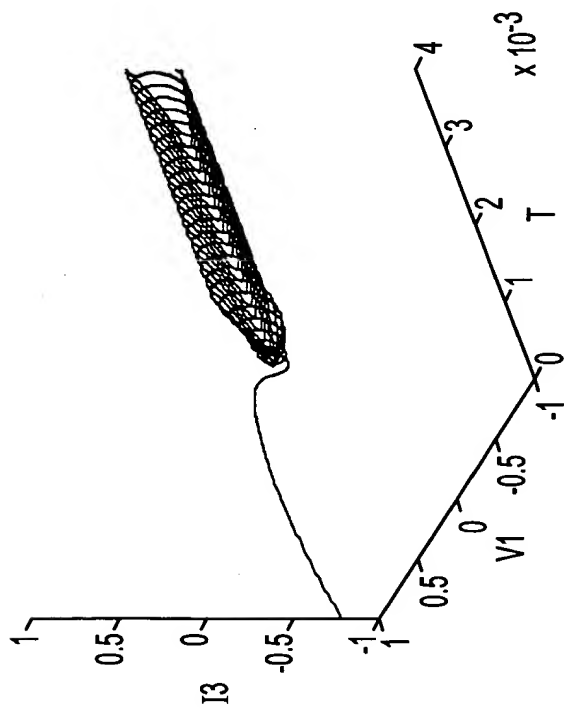


FIG. 22E

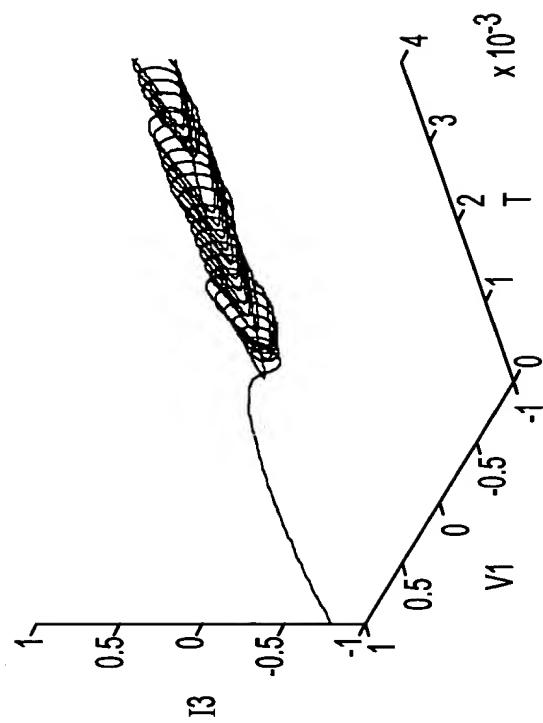


FIG. 22F

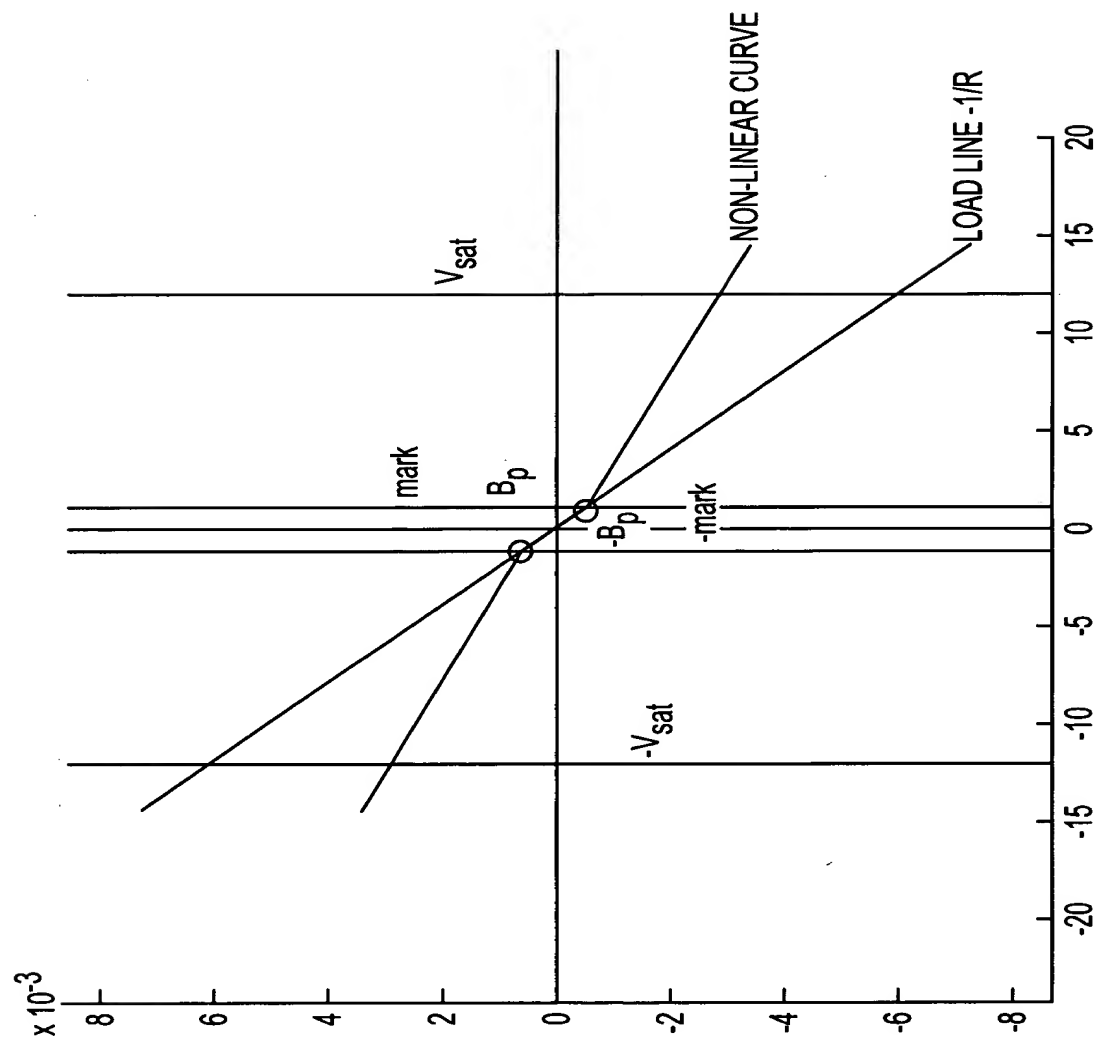
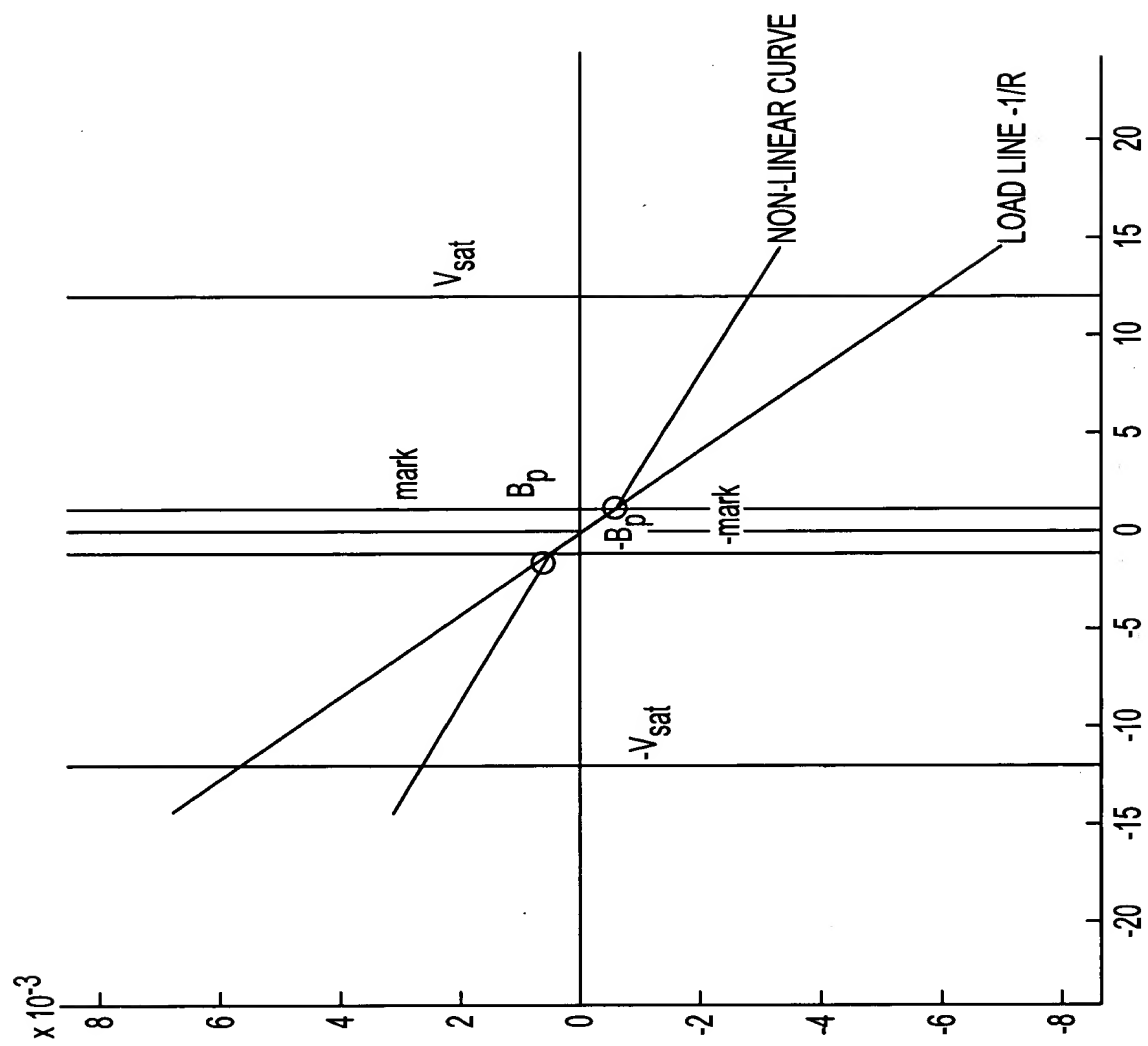


FIG. 23A





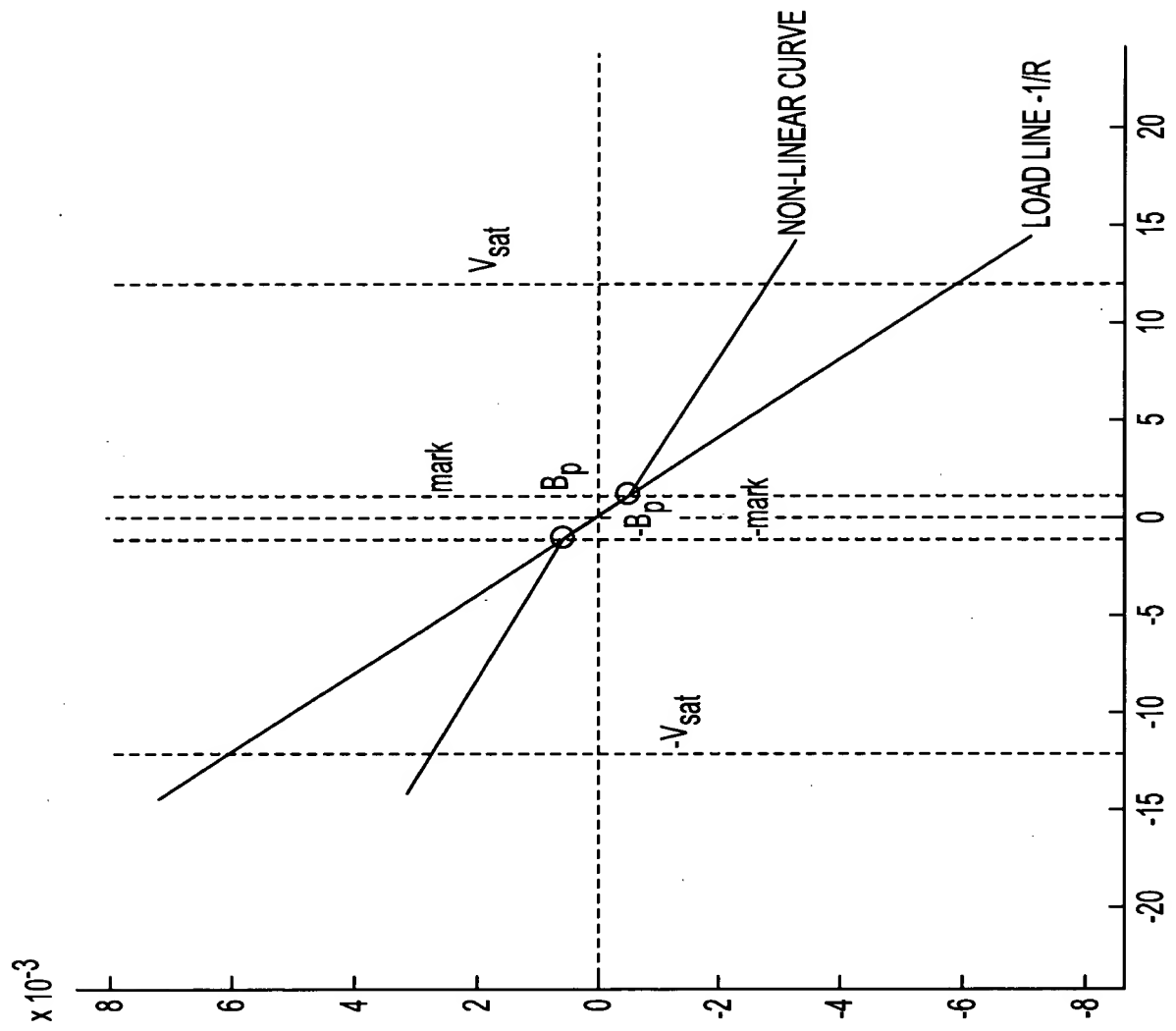


FIG. 23C

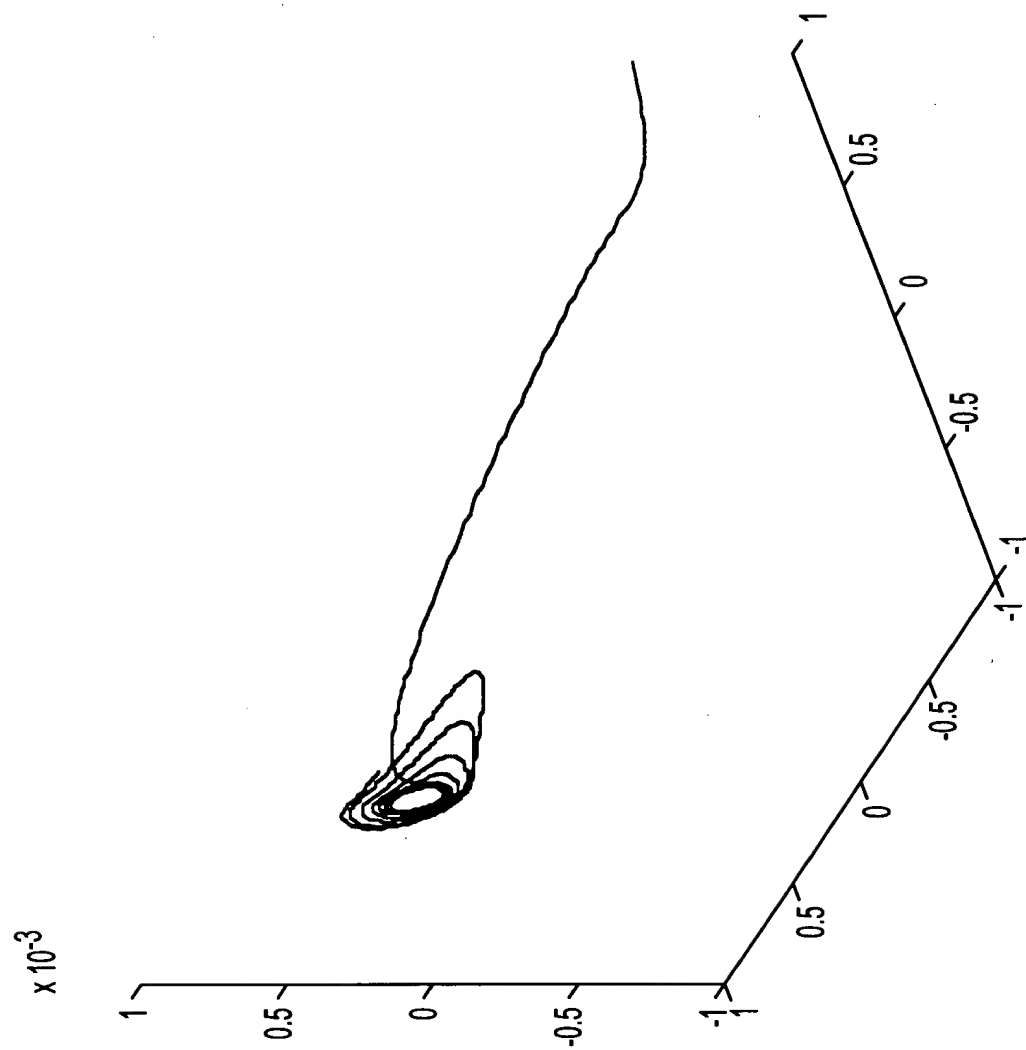


FIG. 23D

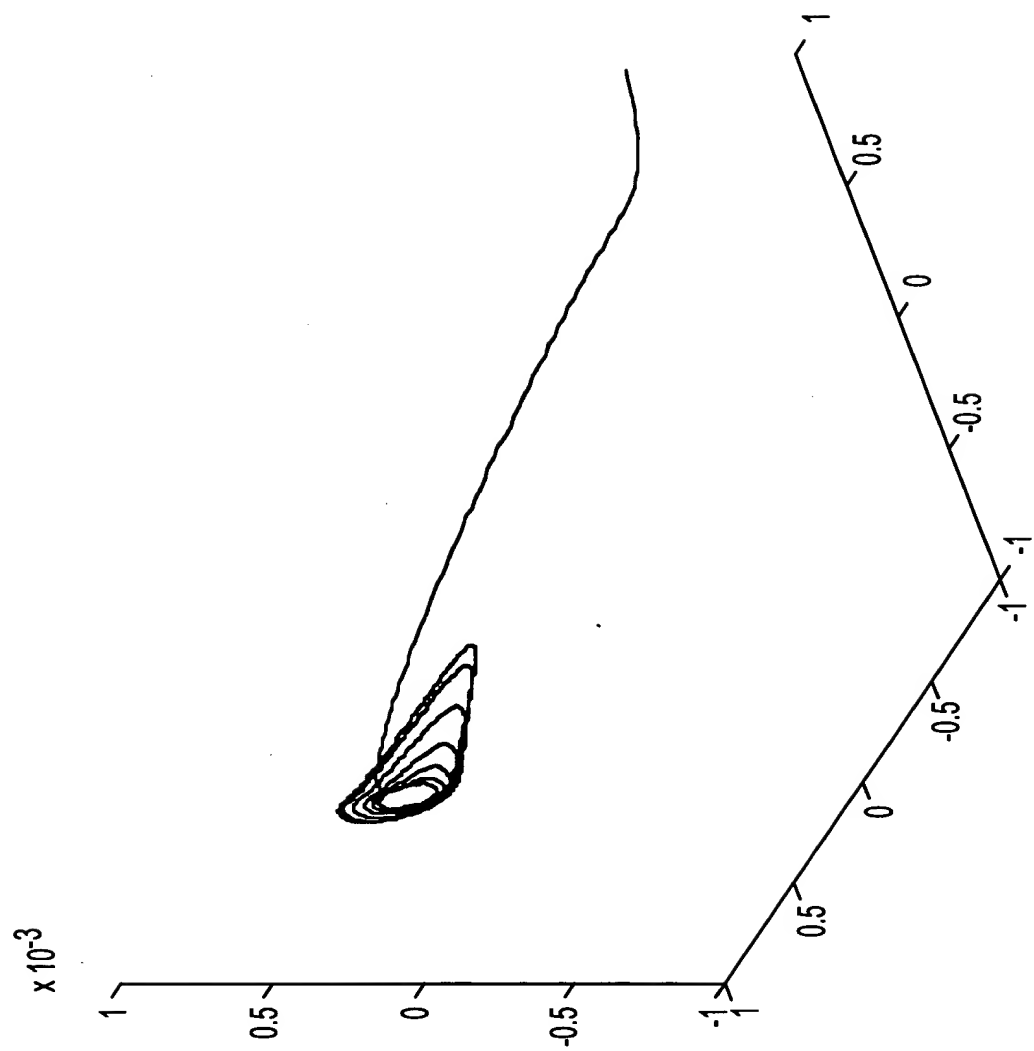


FIG. 23E

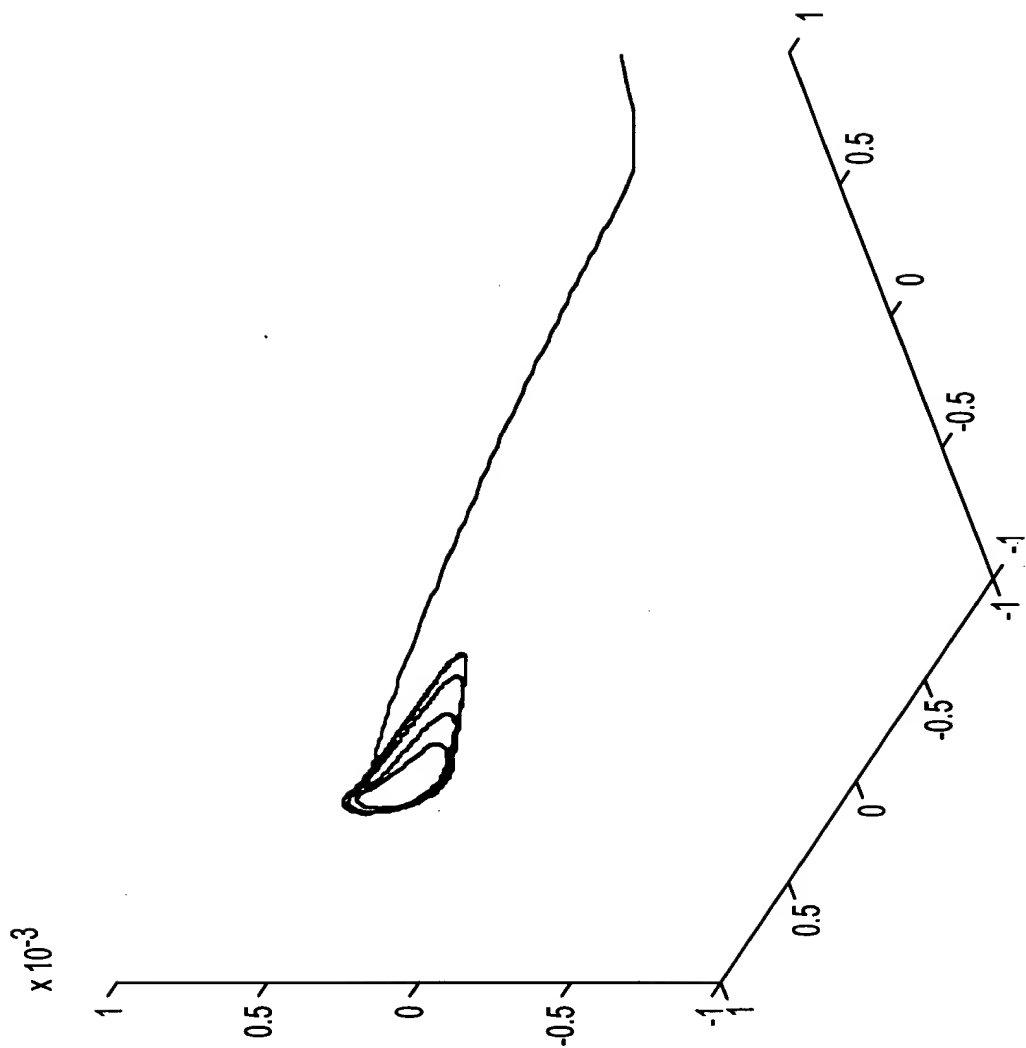


FIG. 23F

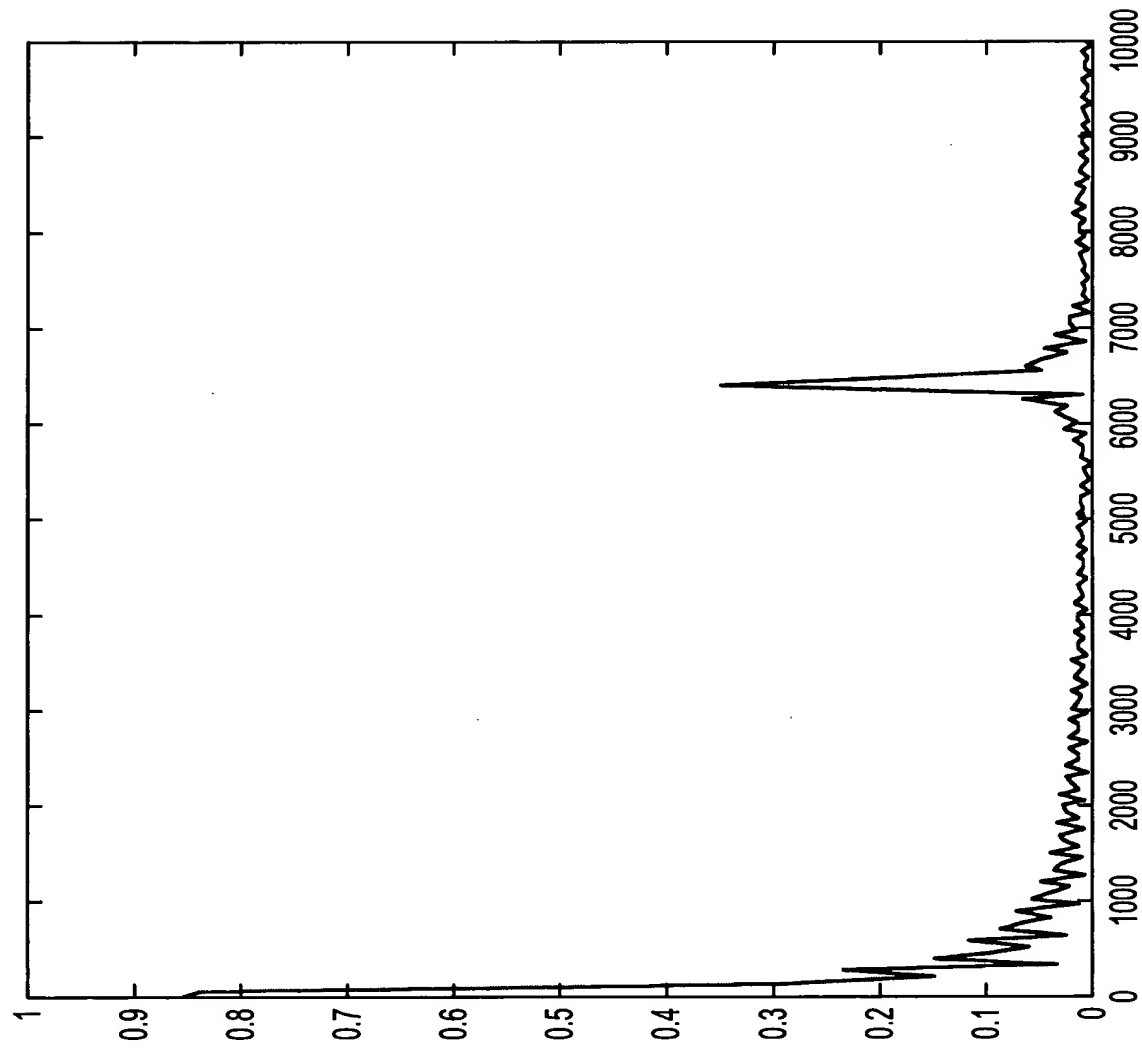


FIG. 23G

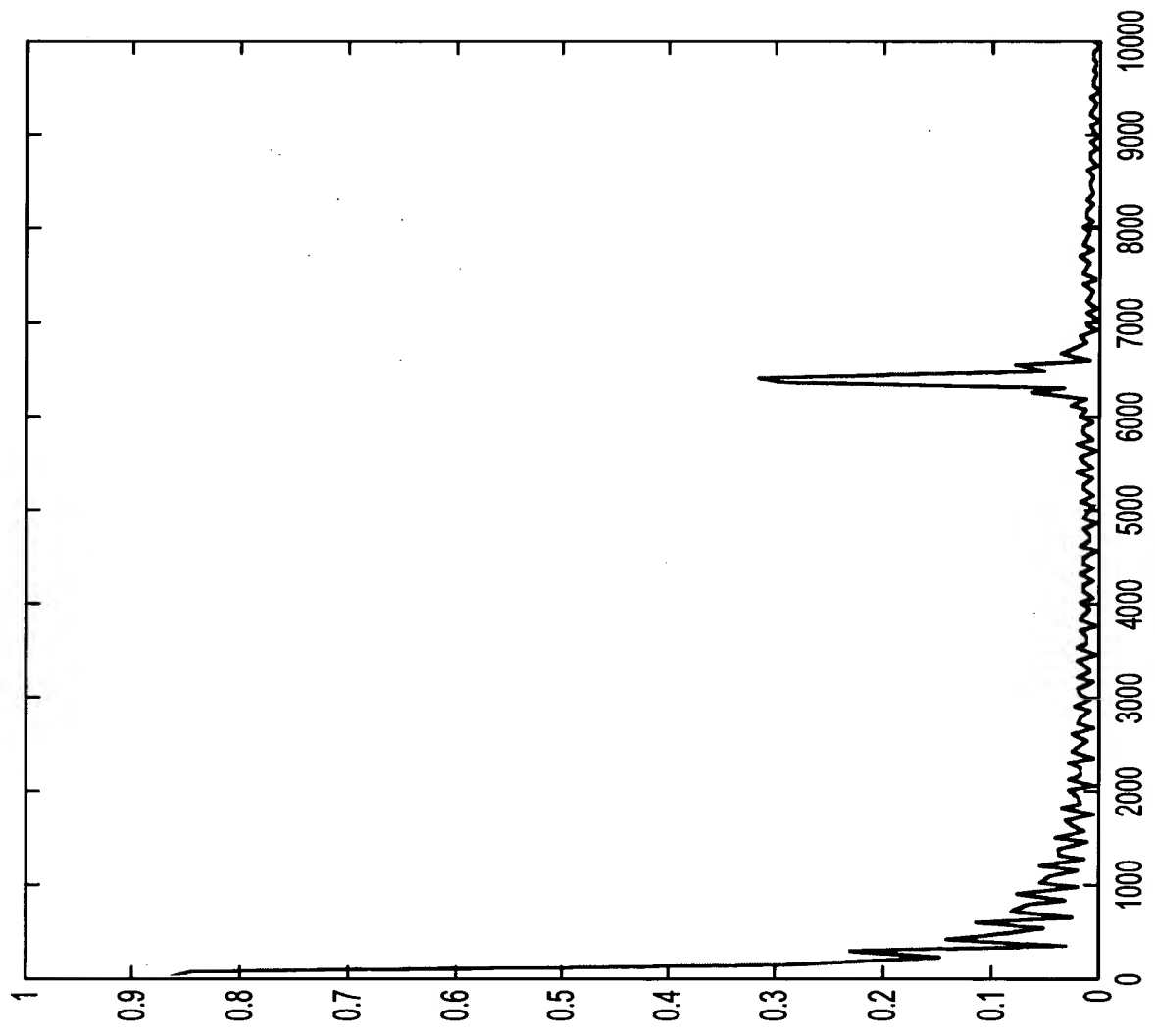


FIG. 23H

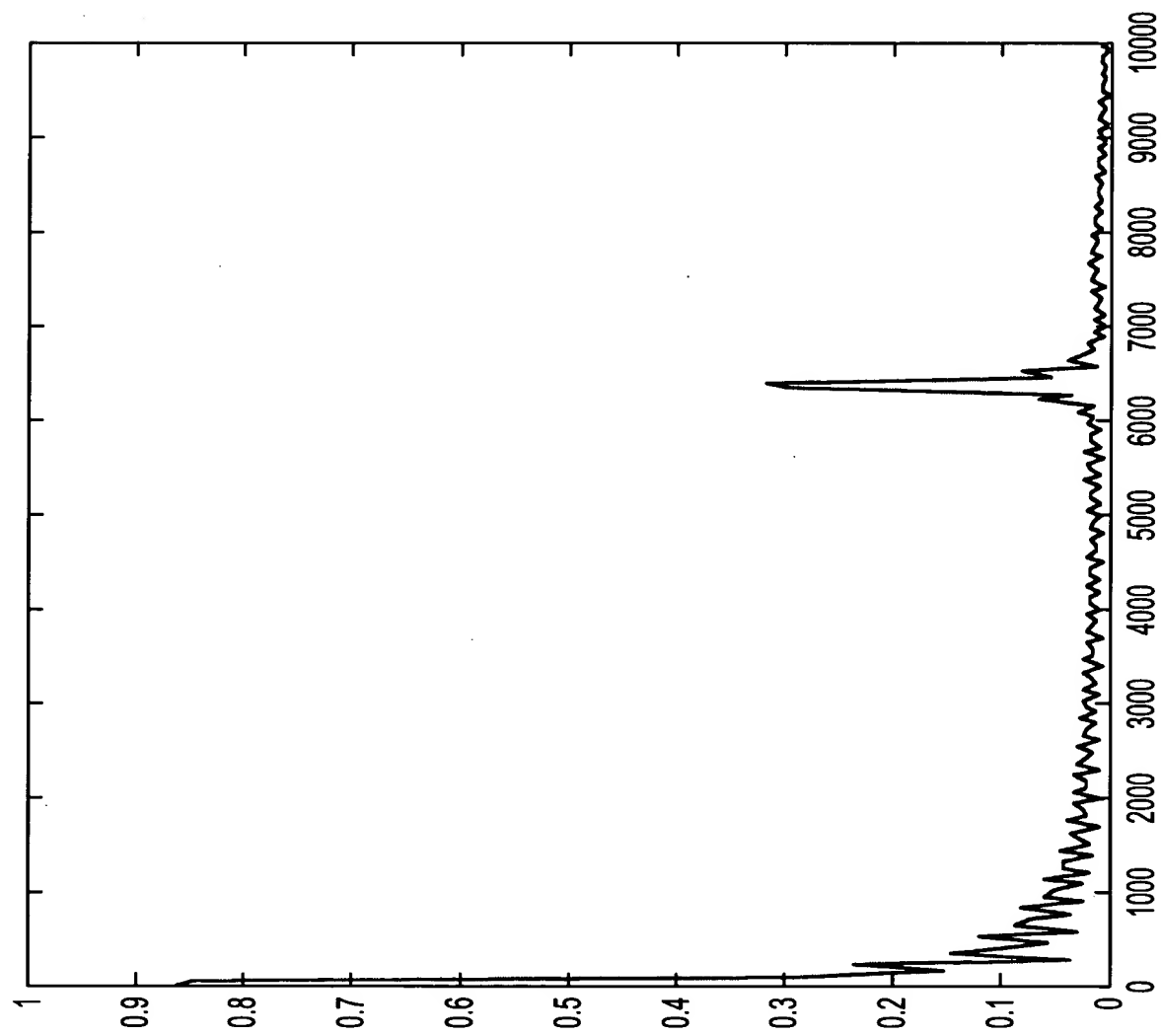


FIG. 23I



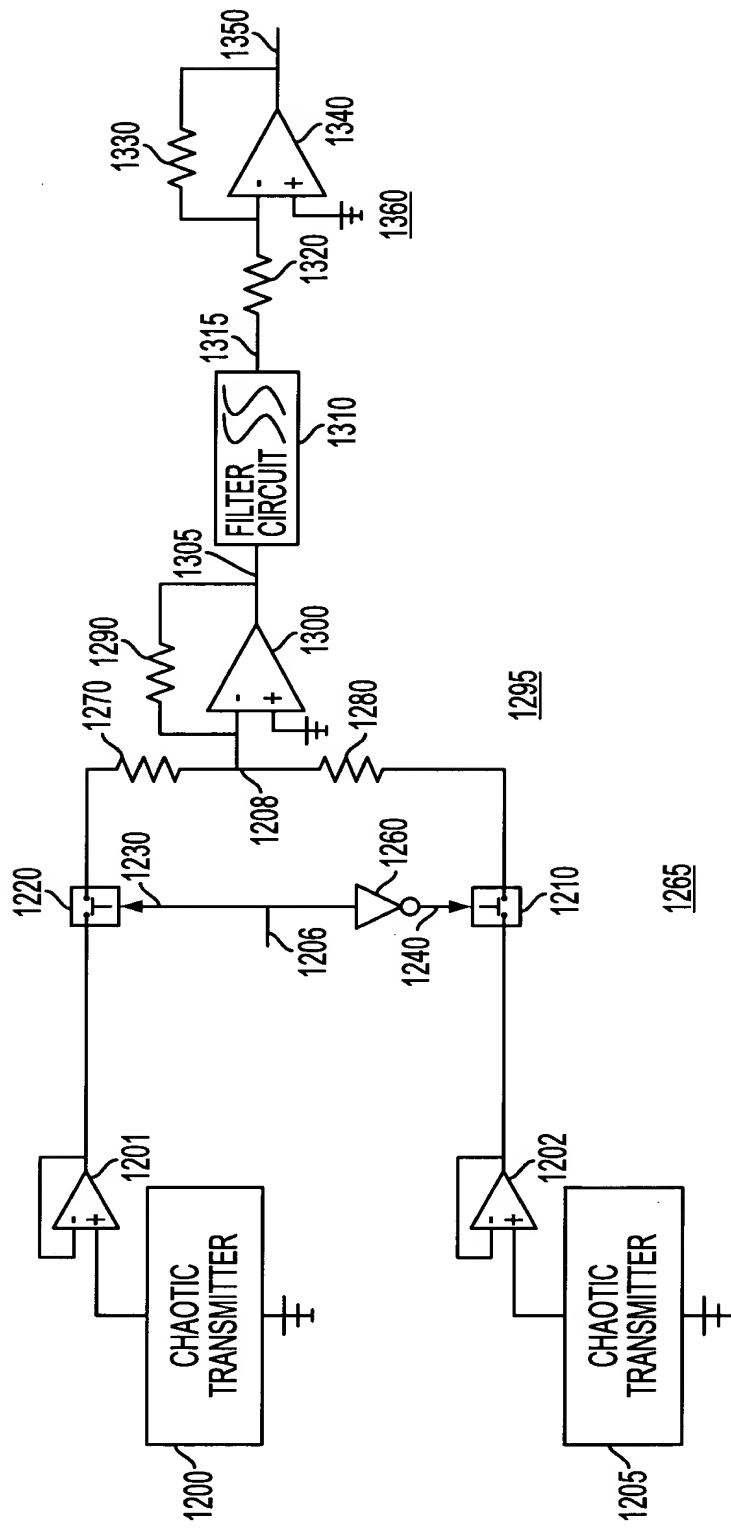
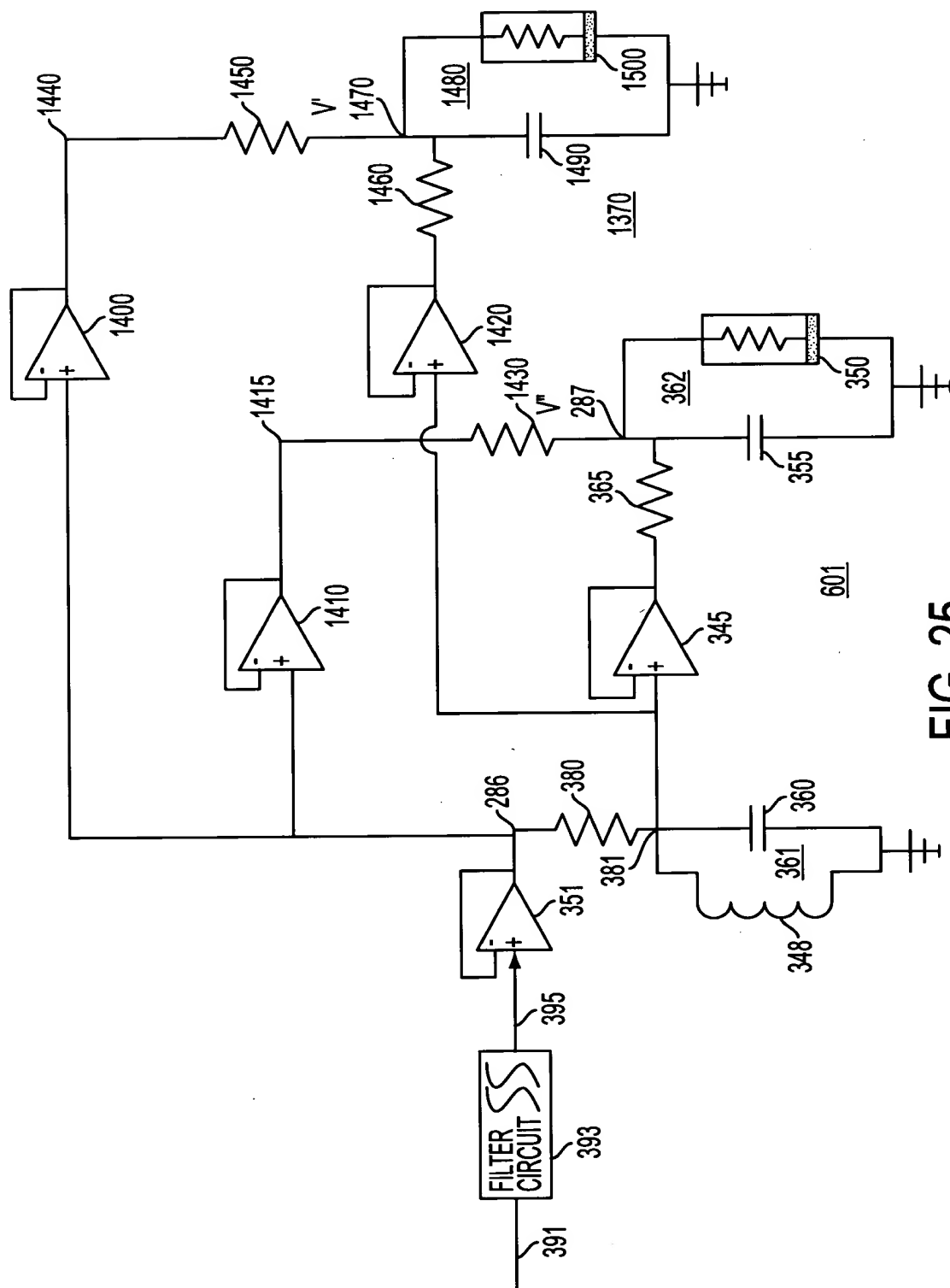


FIG. 24



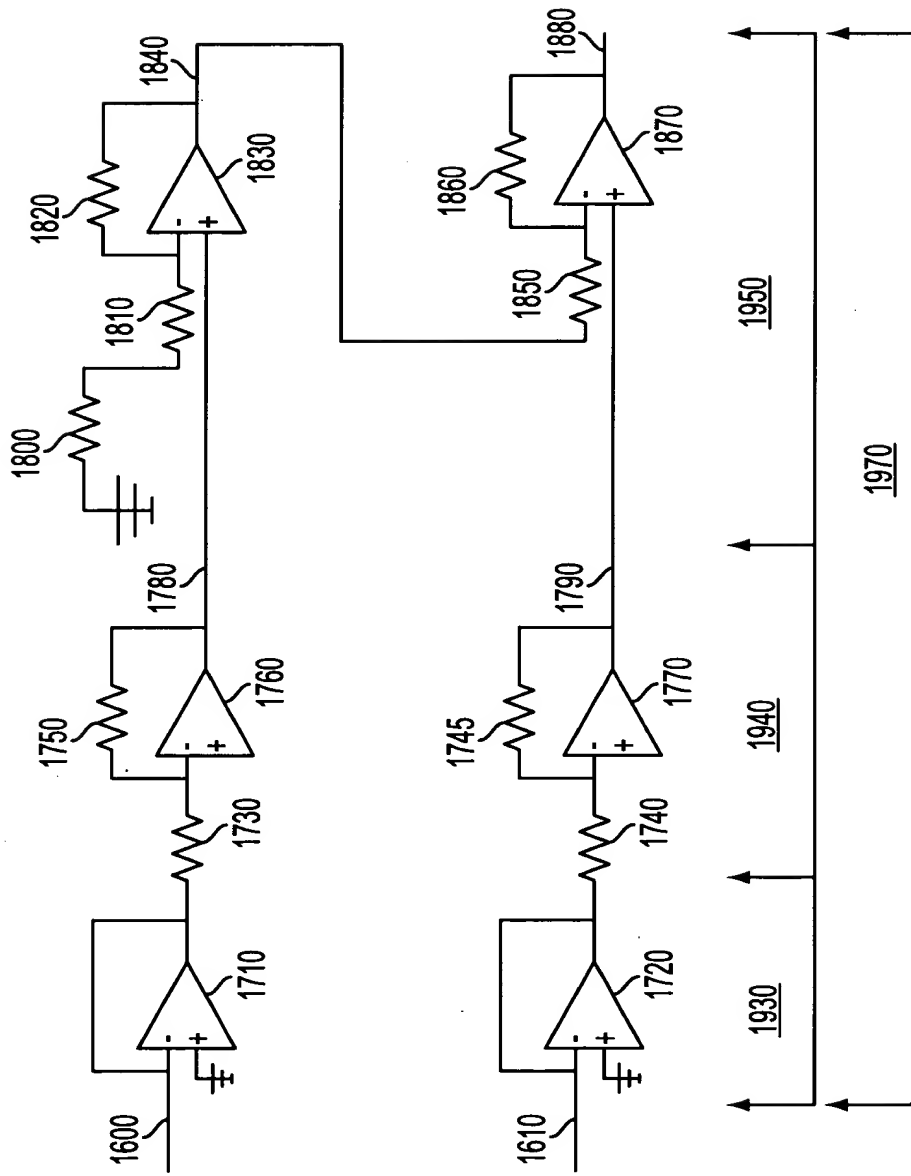


FIG. 26

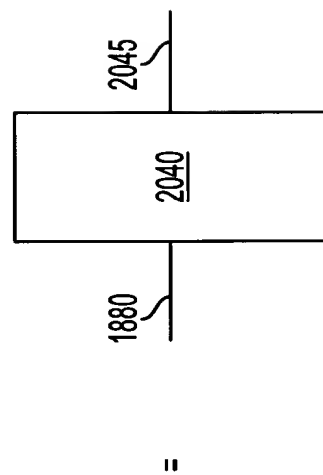
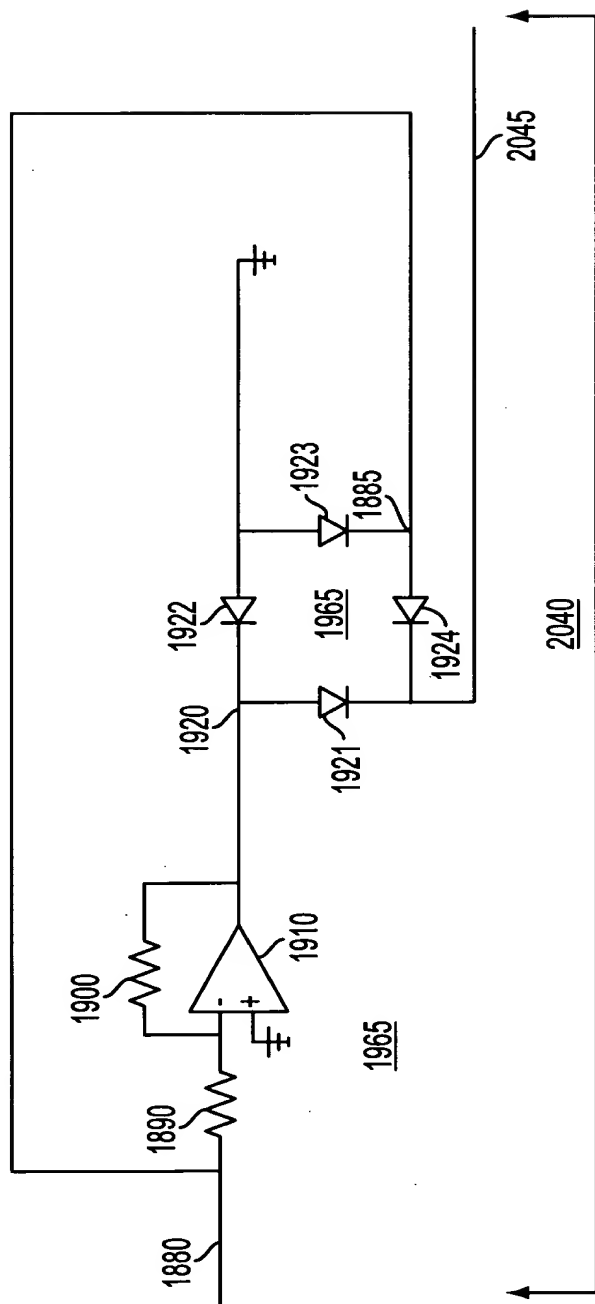


FIG. 27

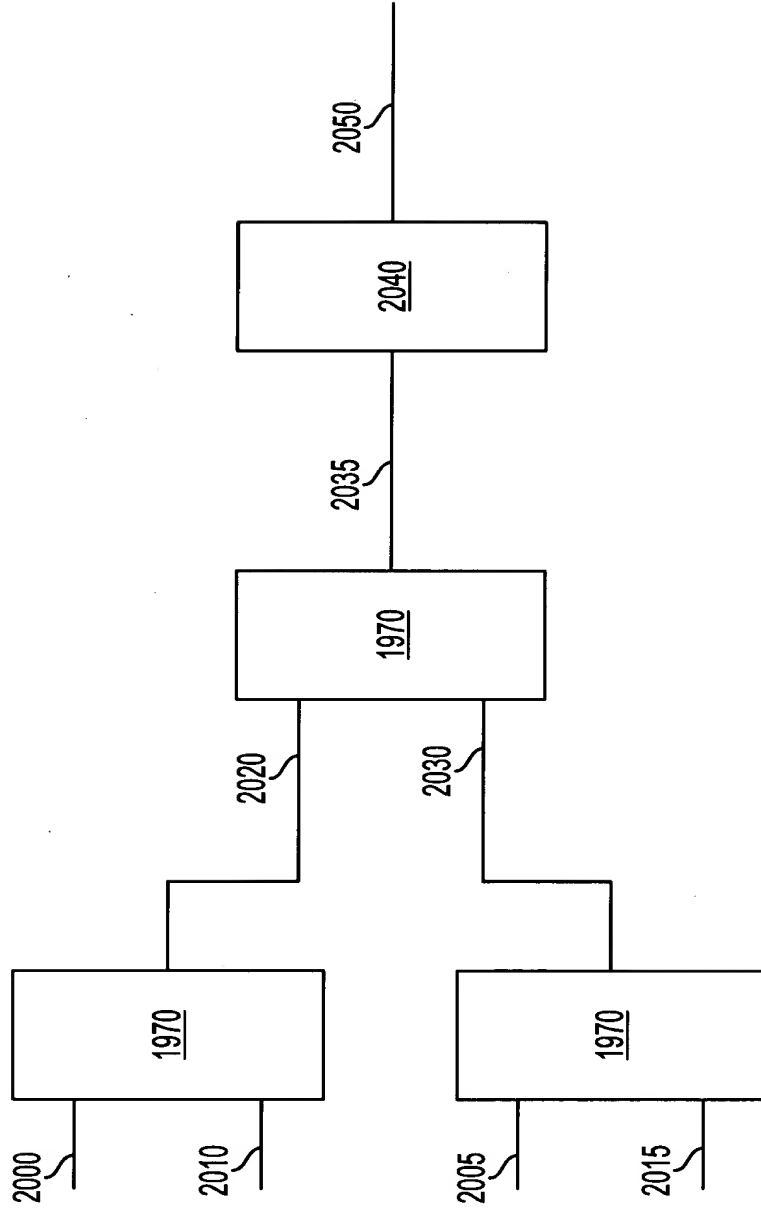


FIG. 28

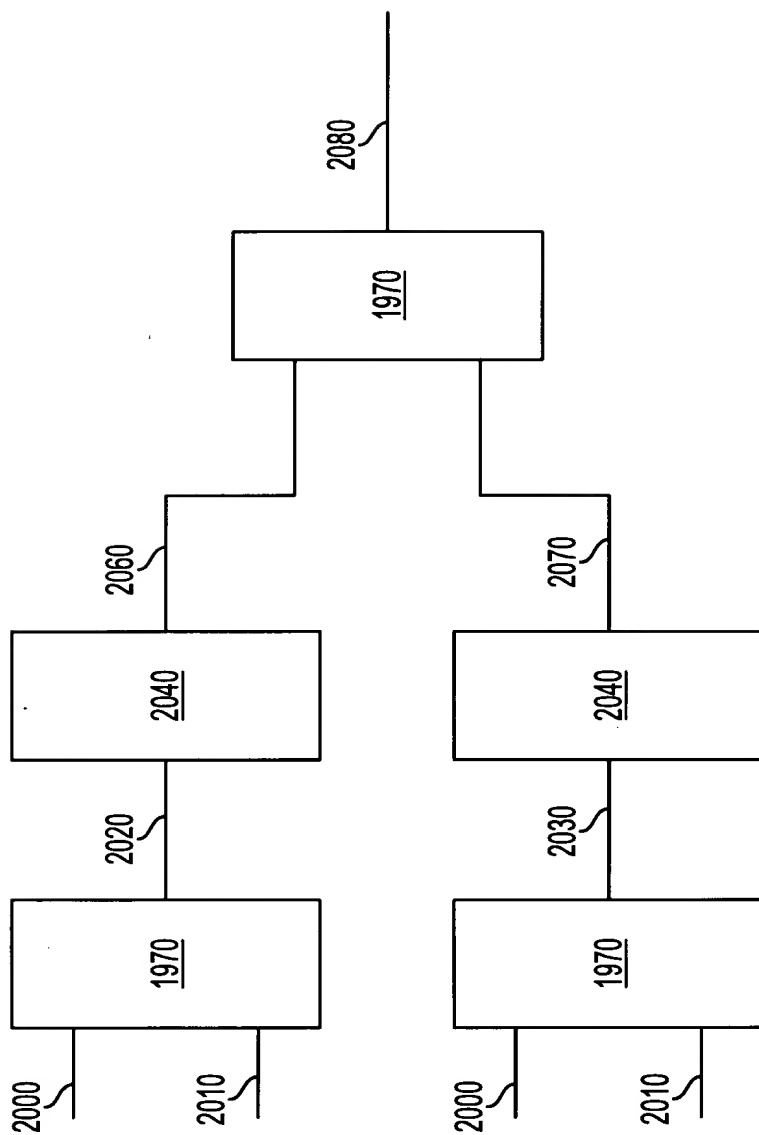


FIG. 29

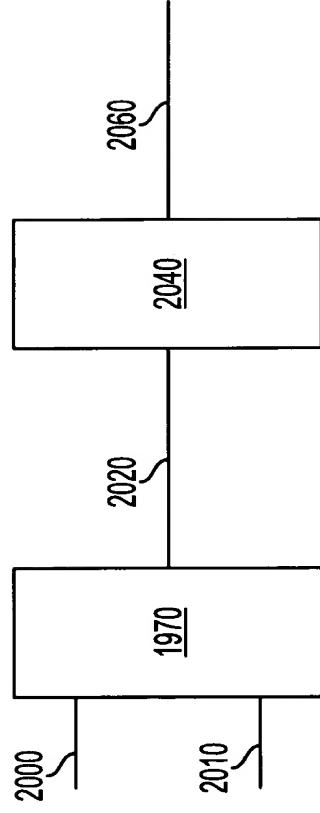


FIG. 30

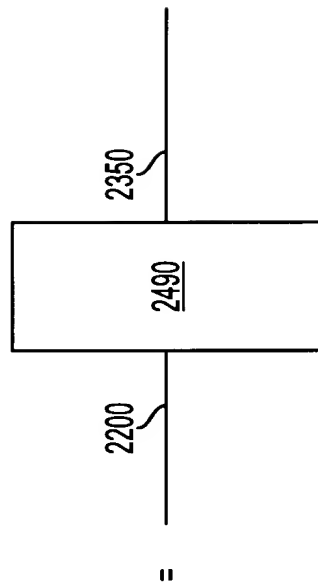
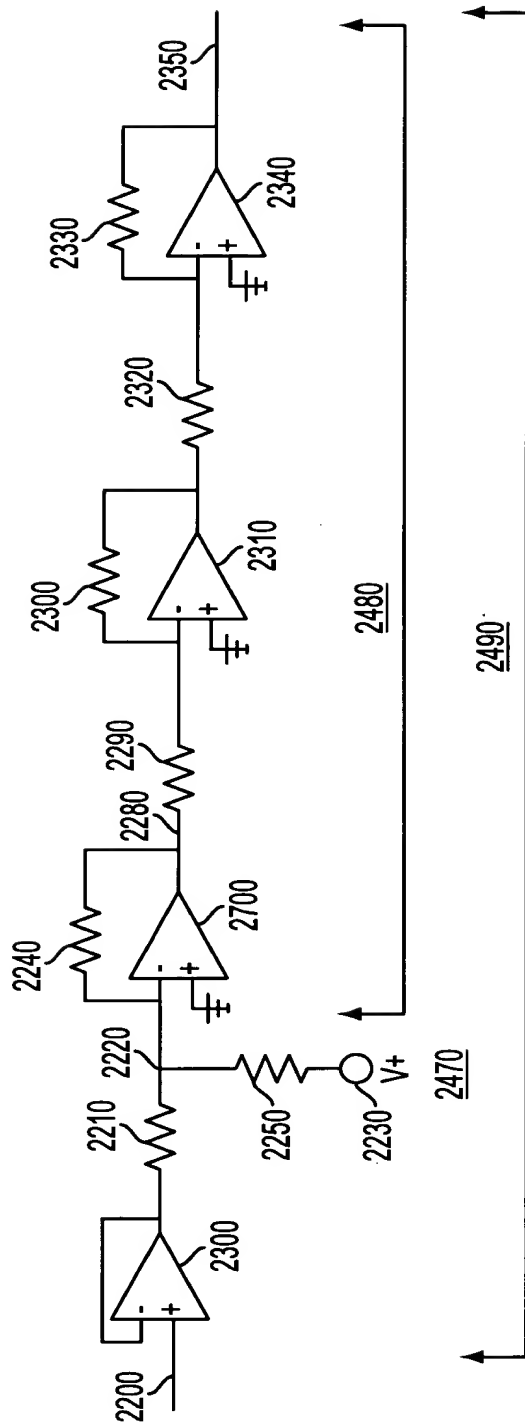


FIG. 31



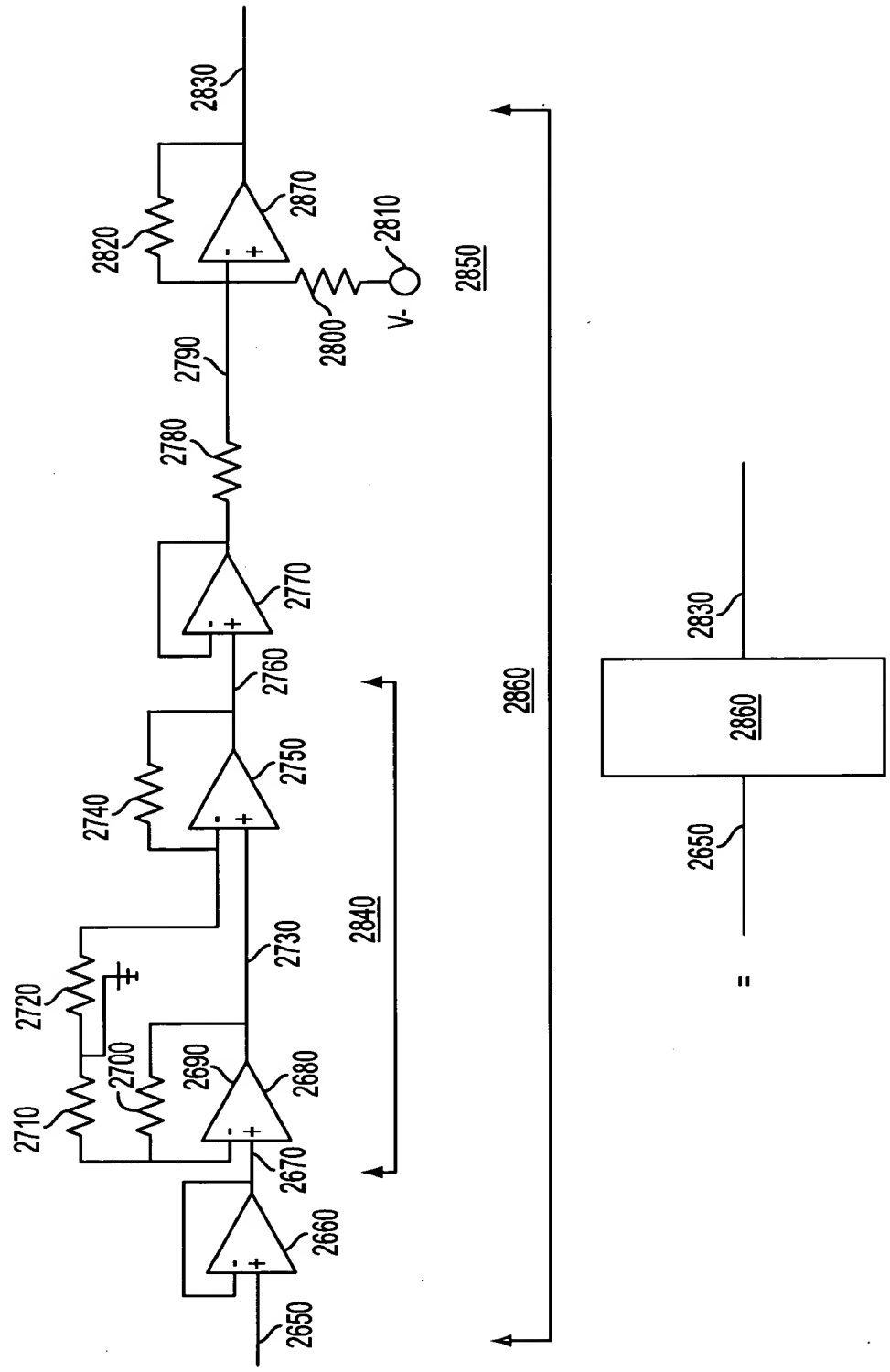


FIG. 32

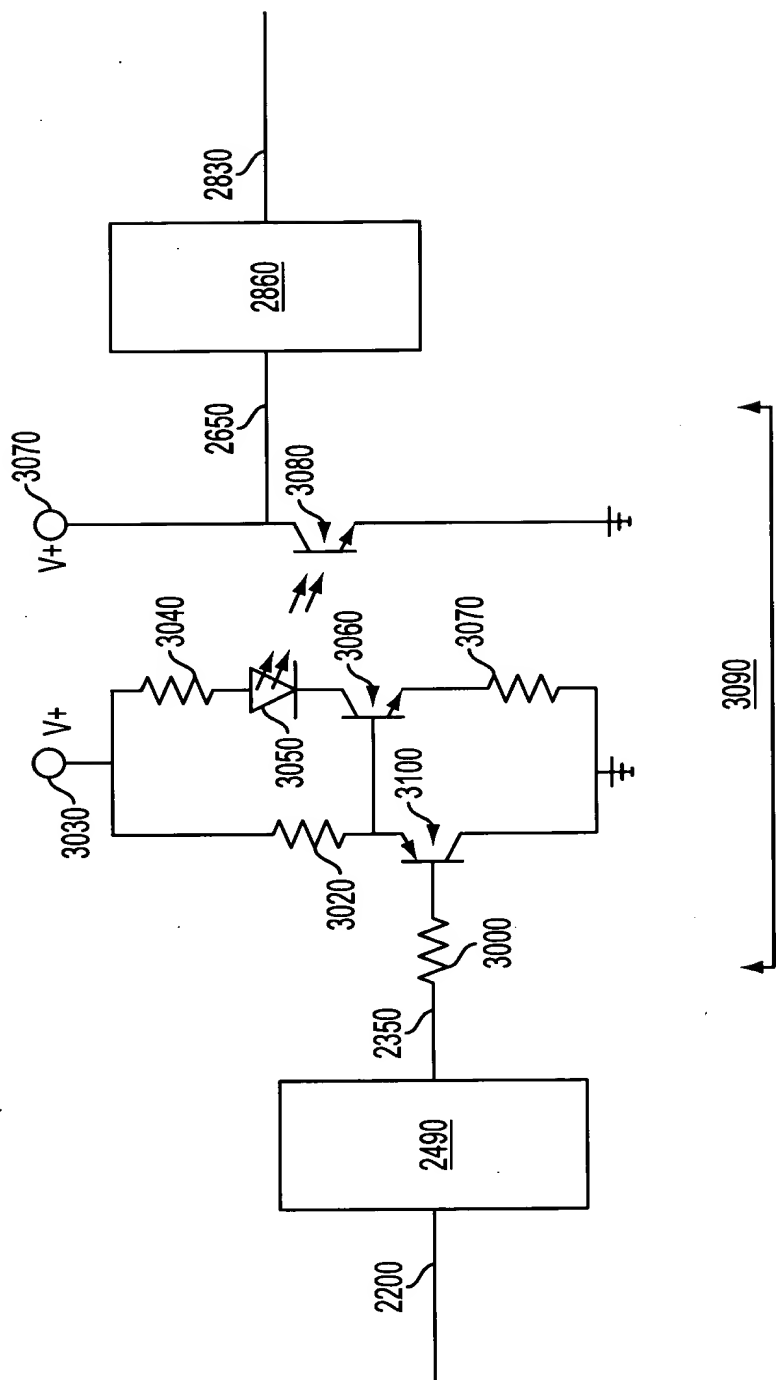


FIG. 33

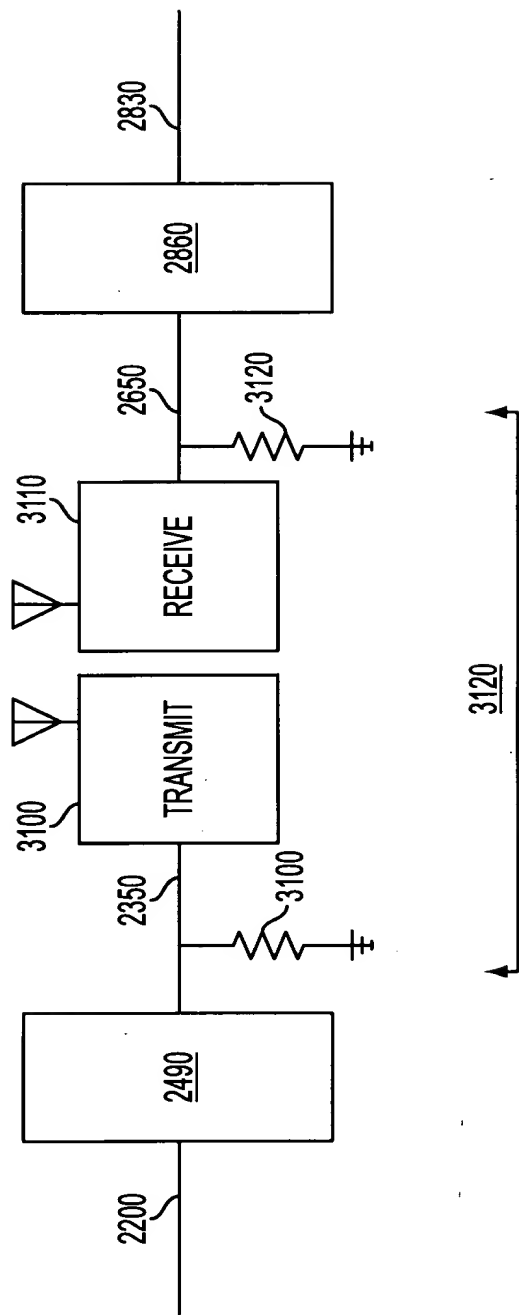


FIG. 34

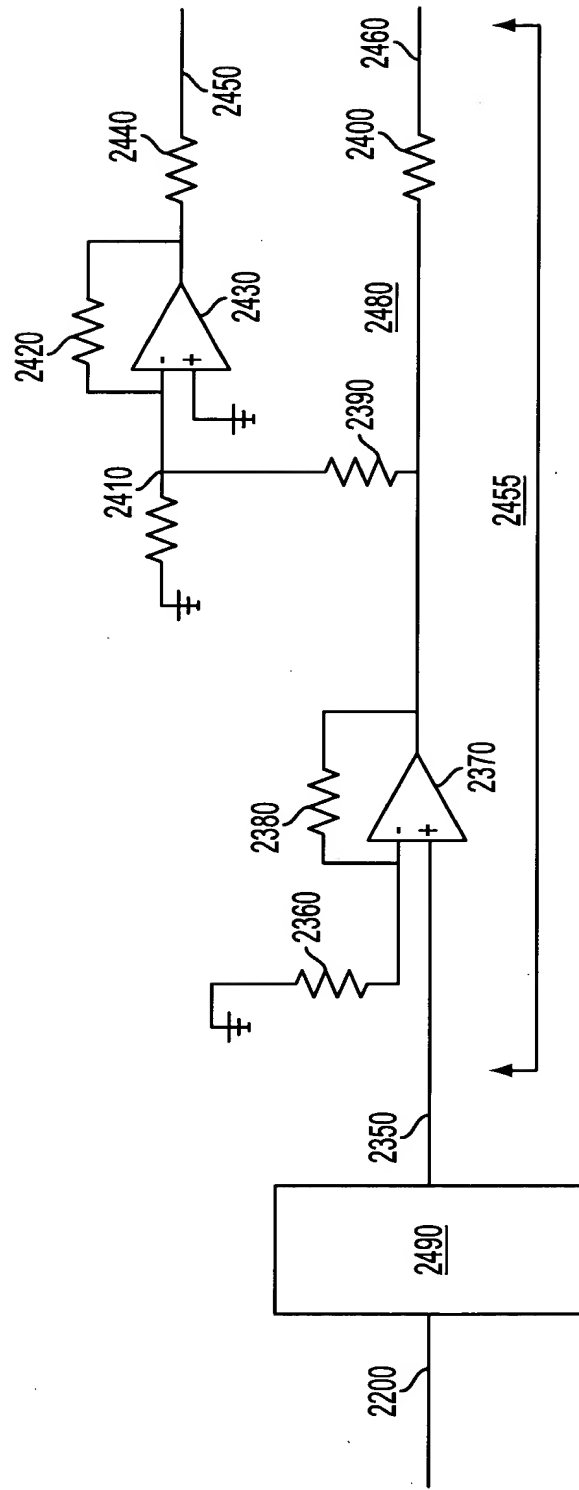


FIG. 35

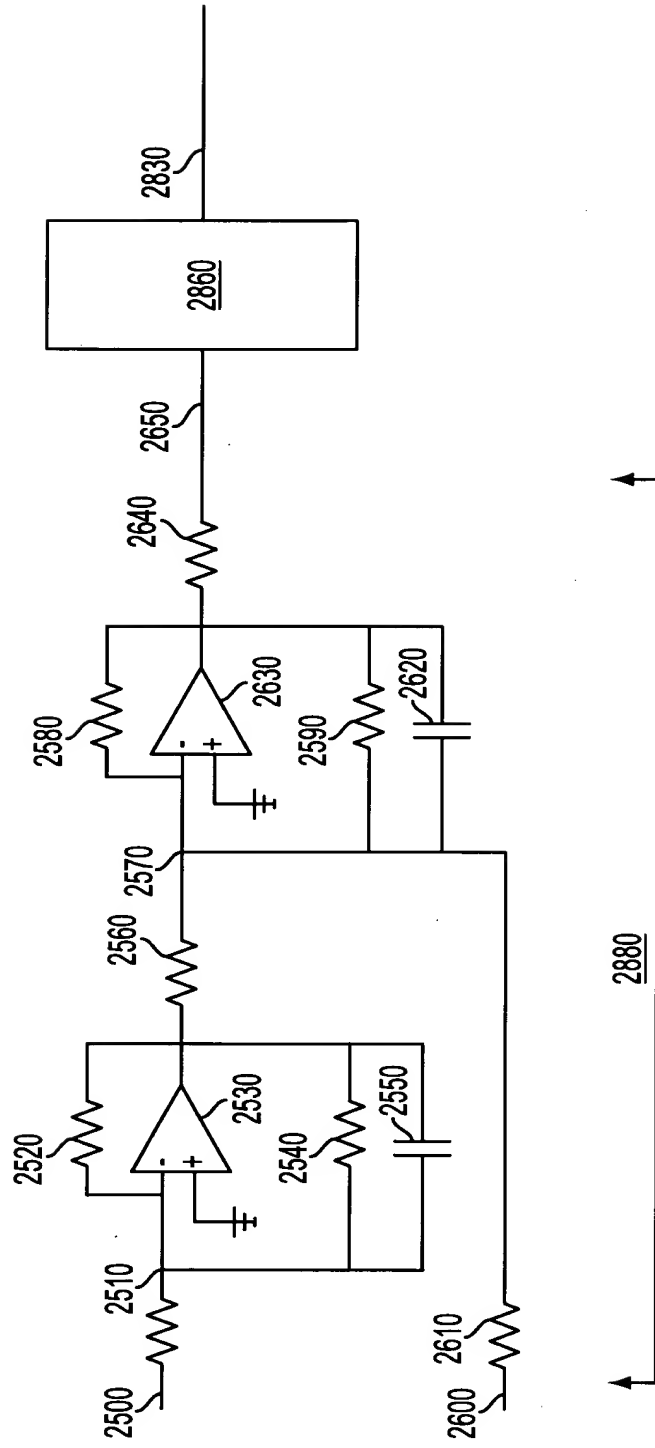


FIG. 36

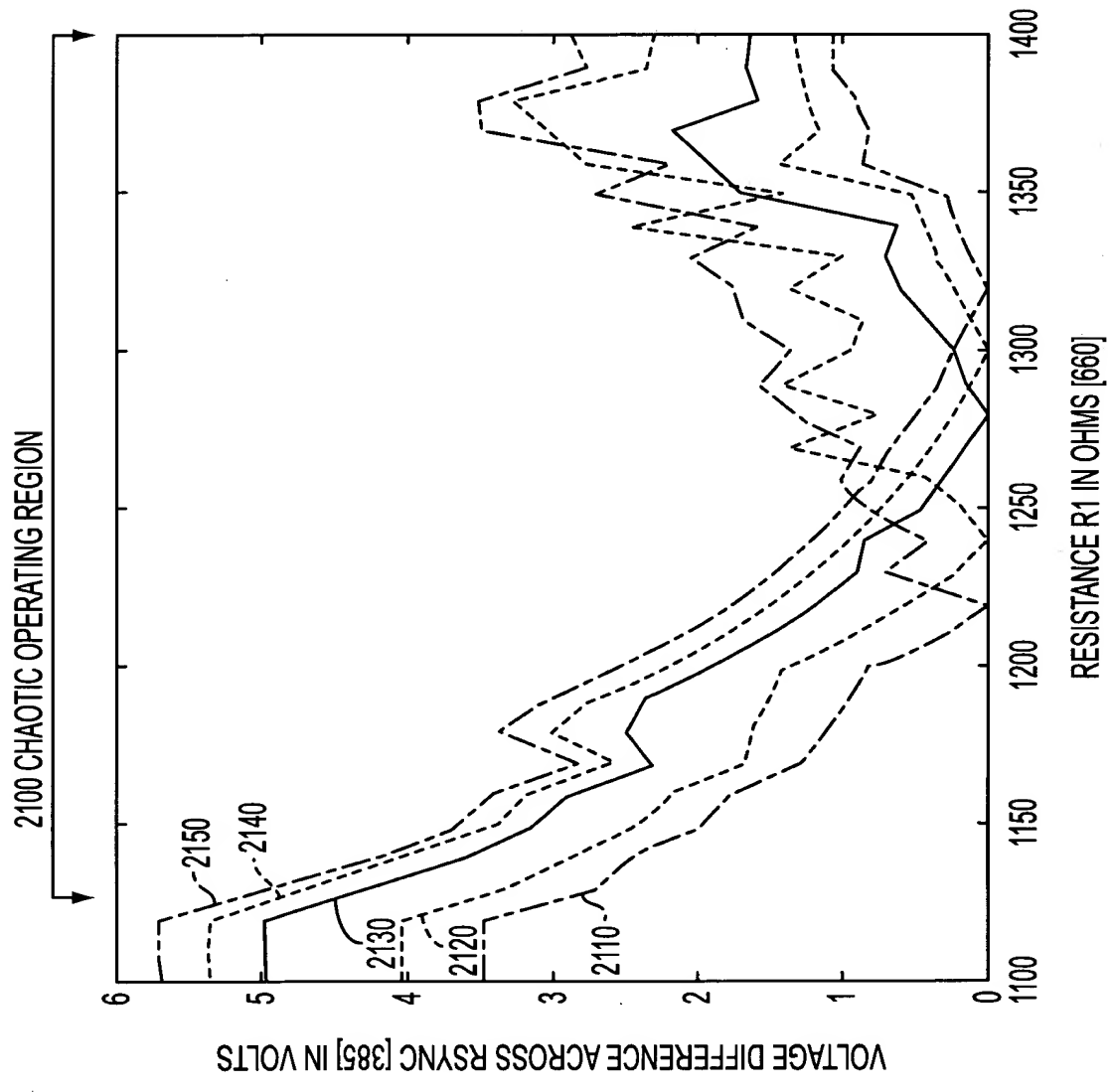


FIG. 37A

CHUA'S RECEIVER CIRCUIT VOLTAGE DIFFERENCE ACROSS RSYNC  
IN THE KENNEDY DIODE OF THE TRANSMITTER FIGURE 37B

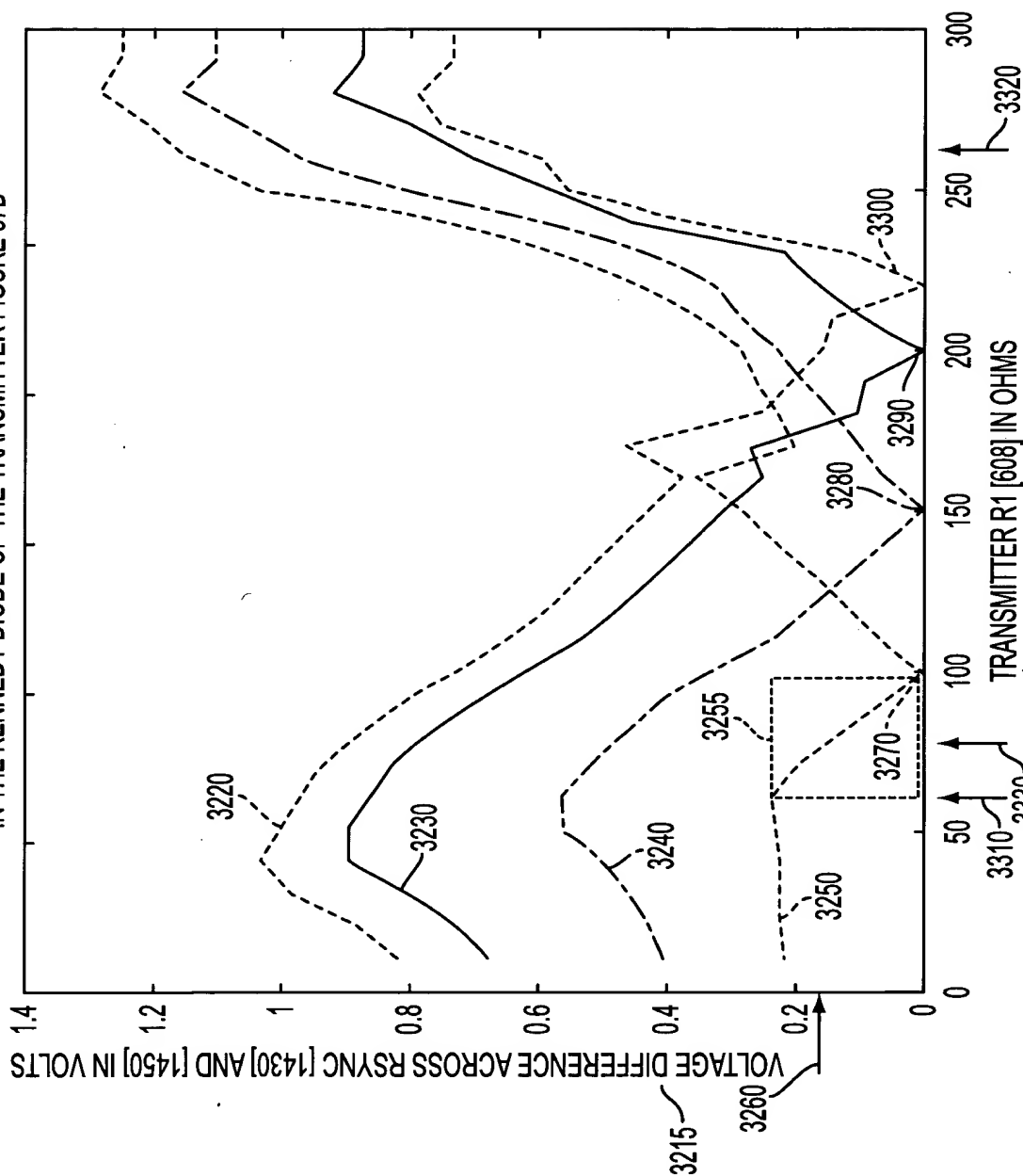


FIG. 37B

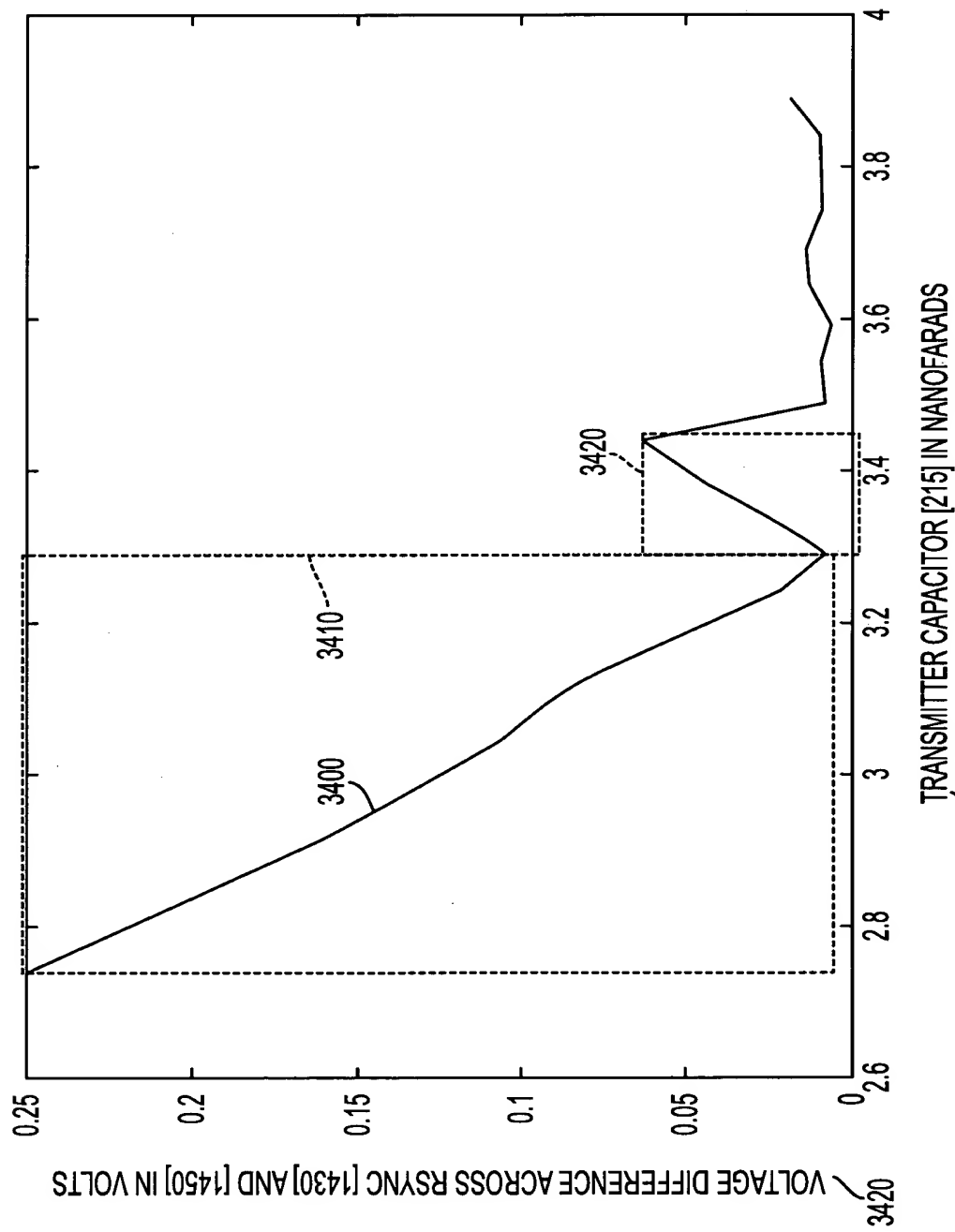


FIG. 37C



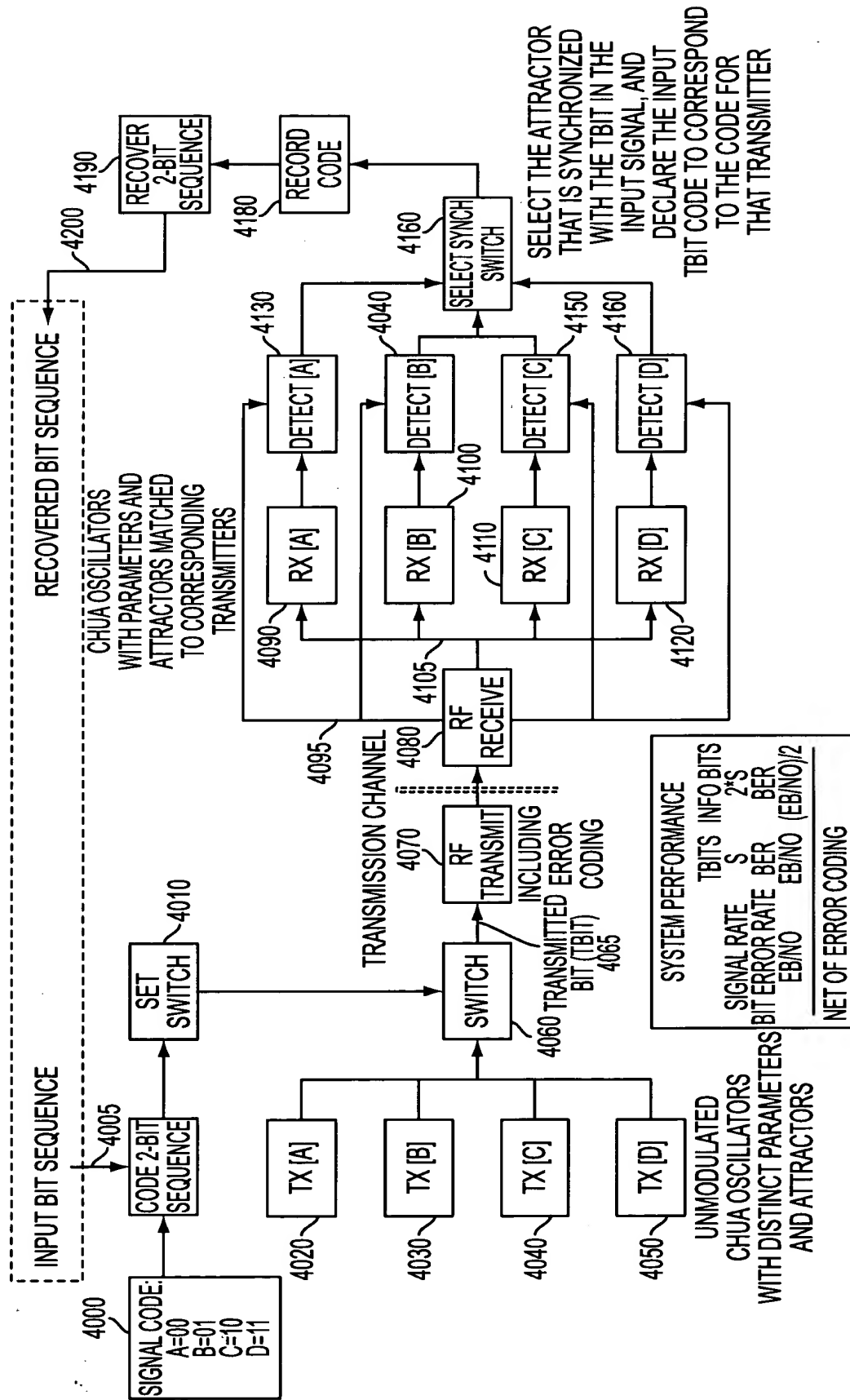


FIG. 38

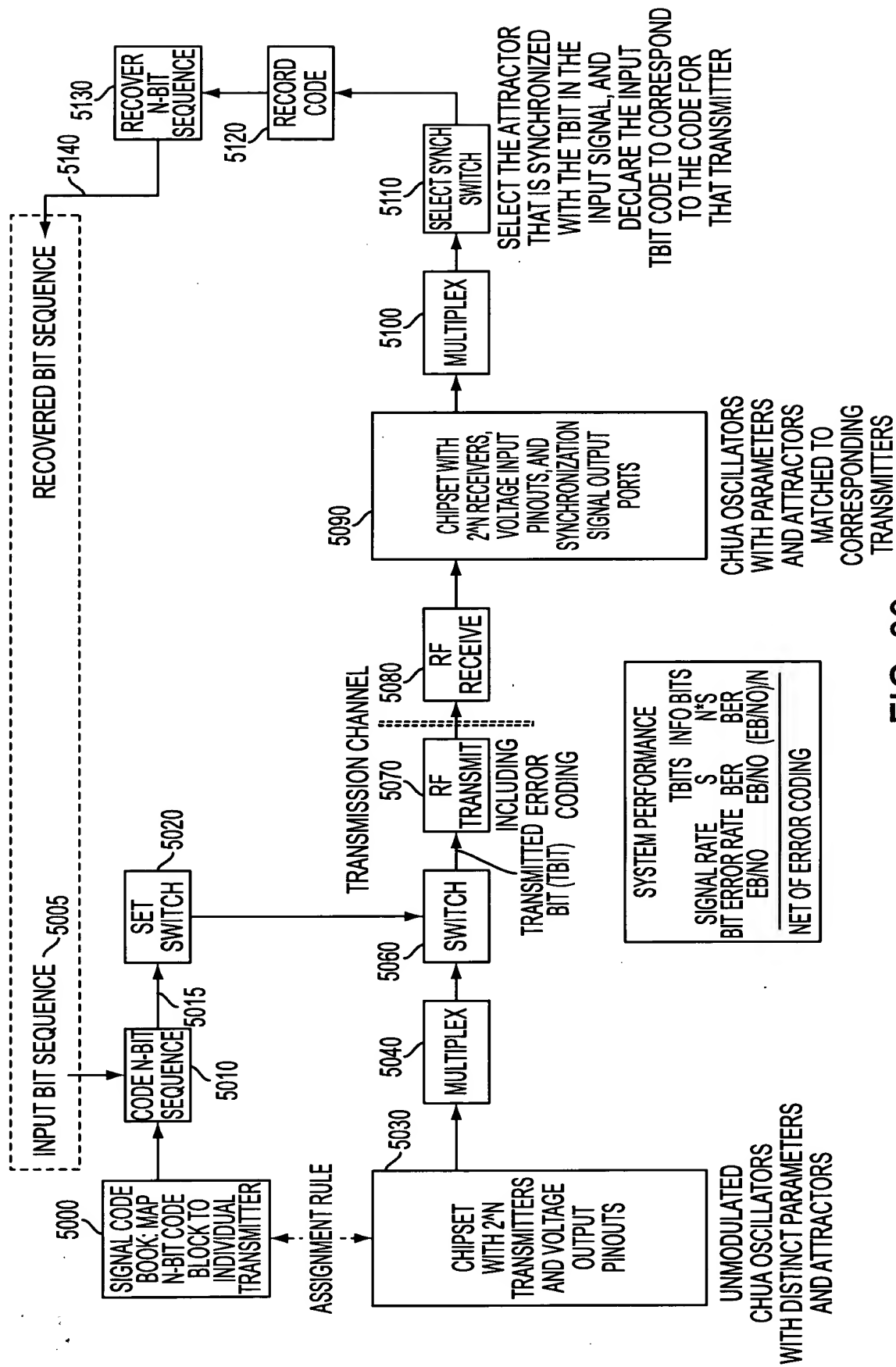


FIG. 39

$G_b = (R_2 - R_1) / (R_1 \cdot R_2)$   
 WHERE  $R_2$  IS COMPONENT [207] AND/OR [231]  
 $+V = +V_{bp}(G_a/G_b) - V_{bp} = [5240]$   
 $-V = -V_{bp}(G_a/G_b) + V_{bp} = [5250]$

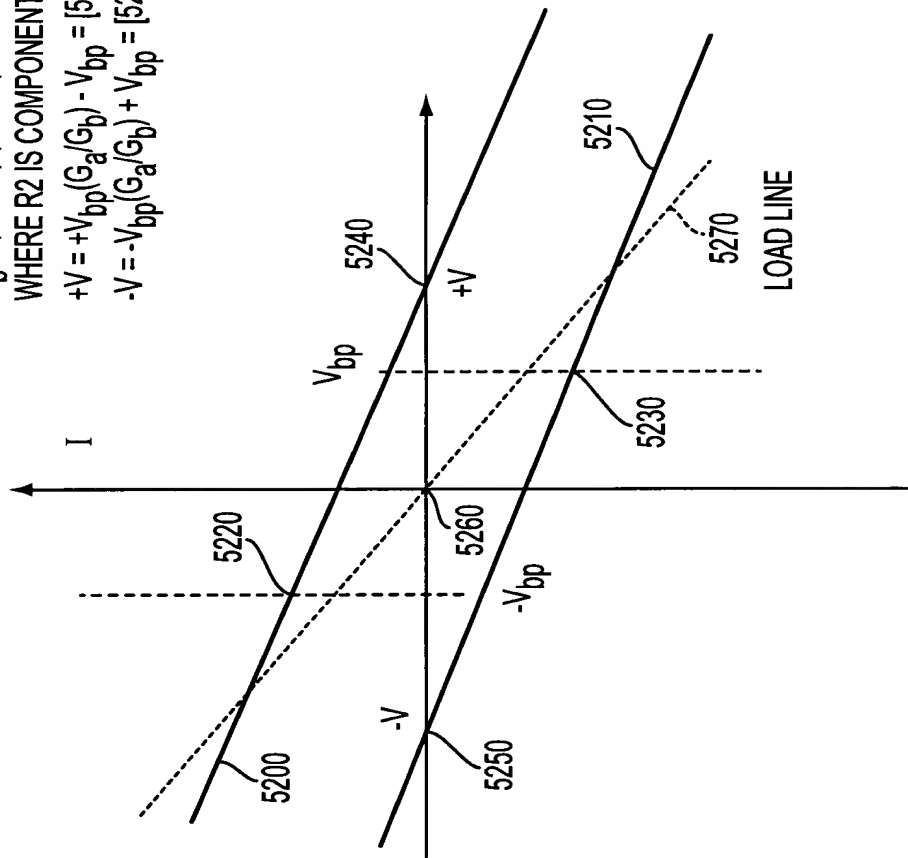


FIG. 40

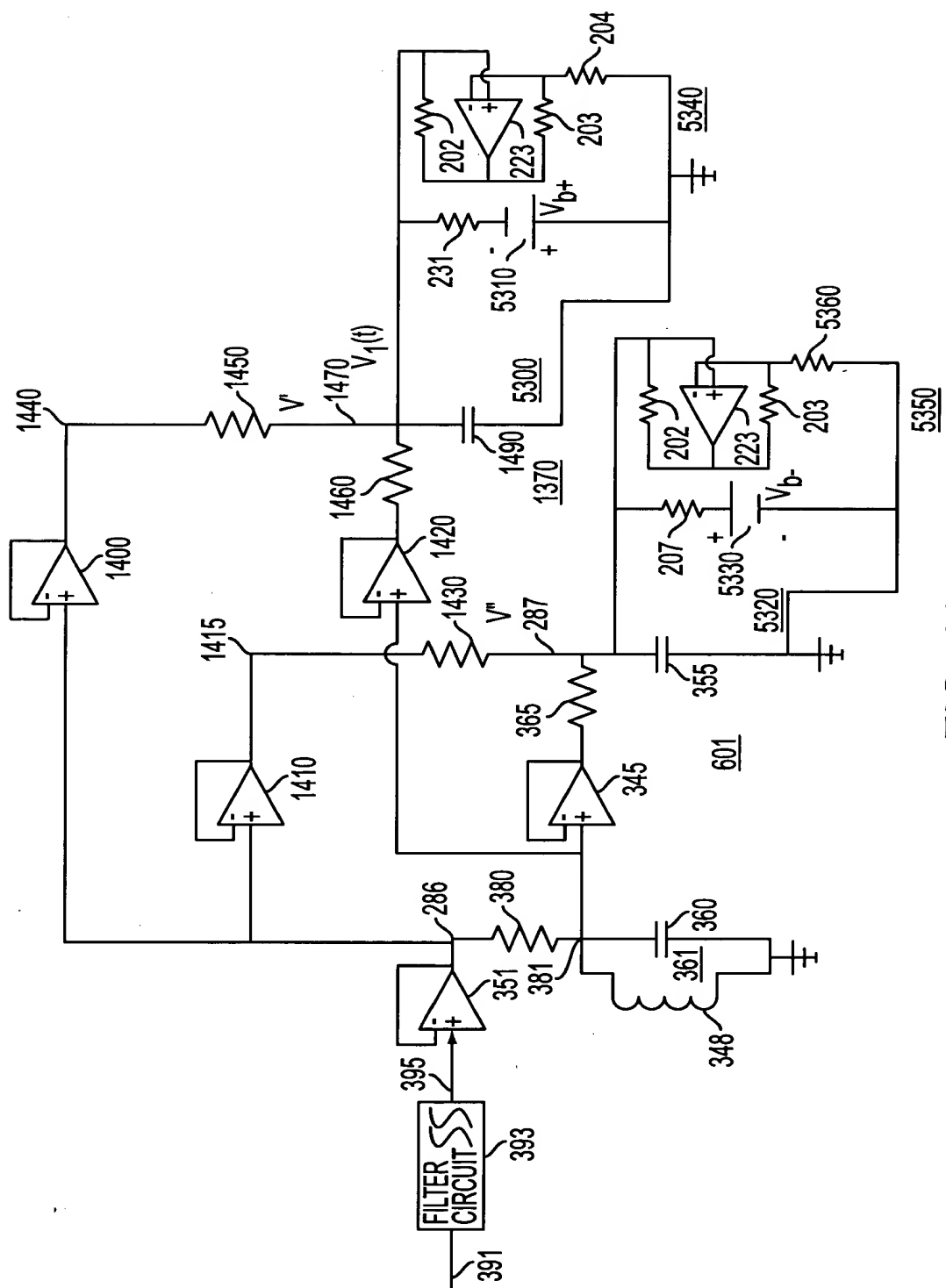


FIG. 41

DETECTION MATRIX

V2	V1	V1'
-/+	-	+

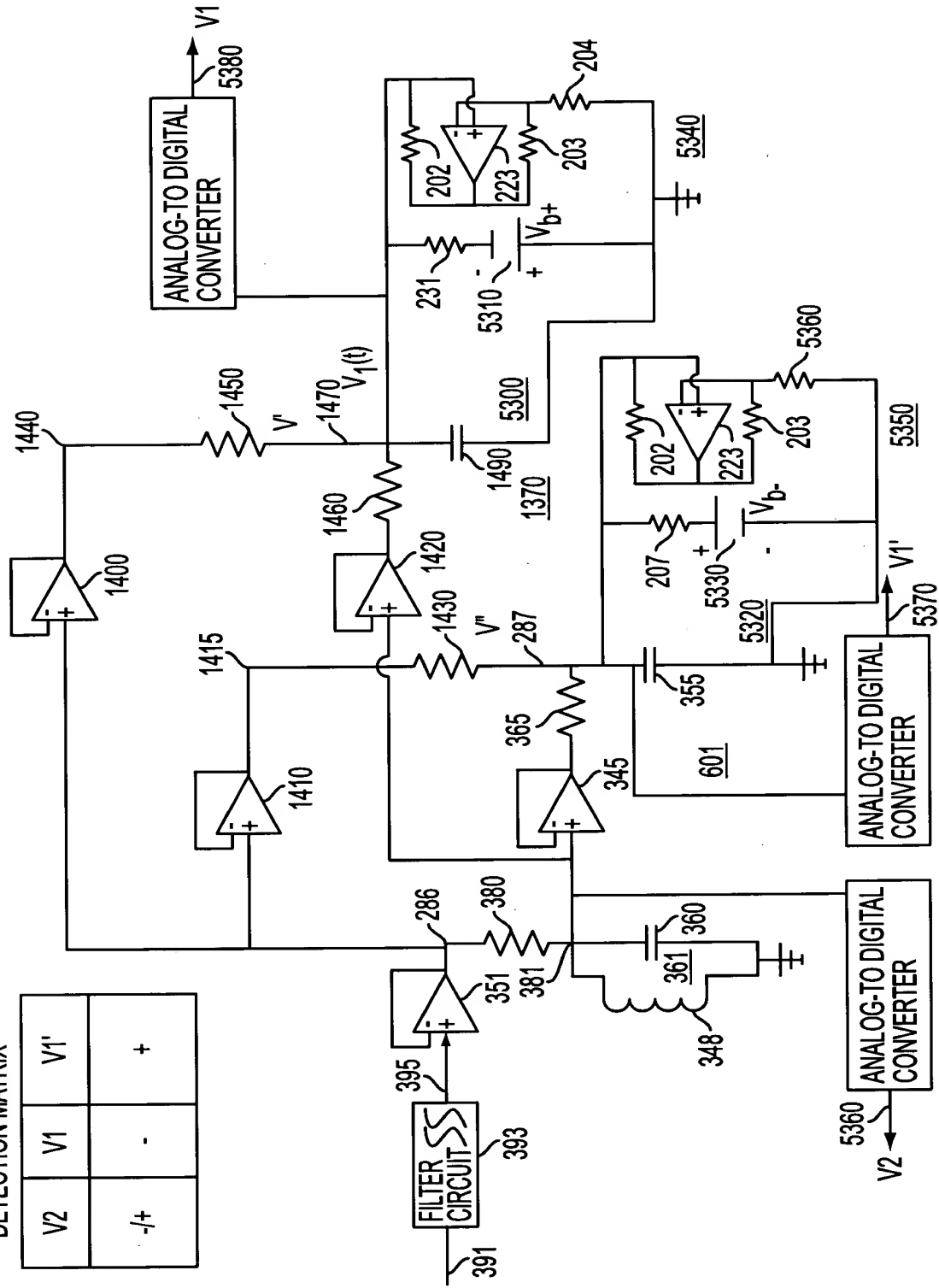


FIG. 42

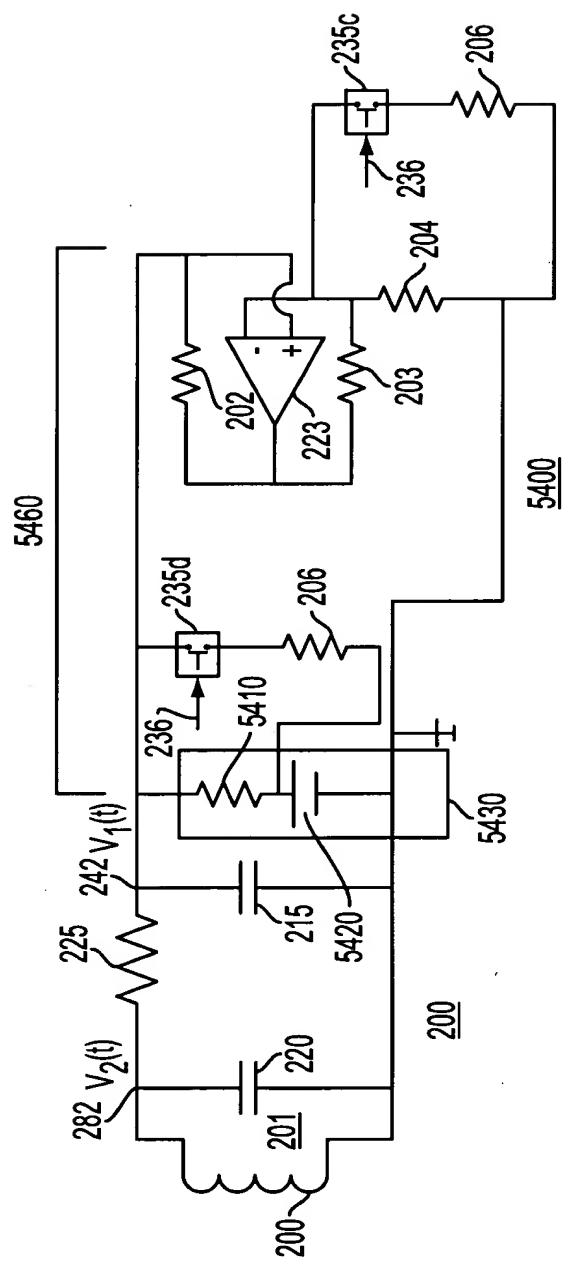


FIG. 43

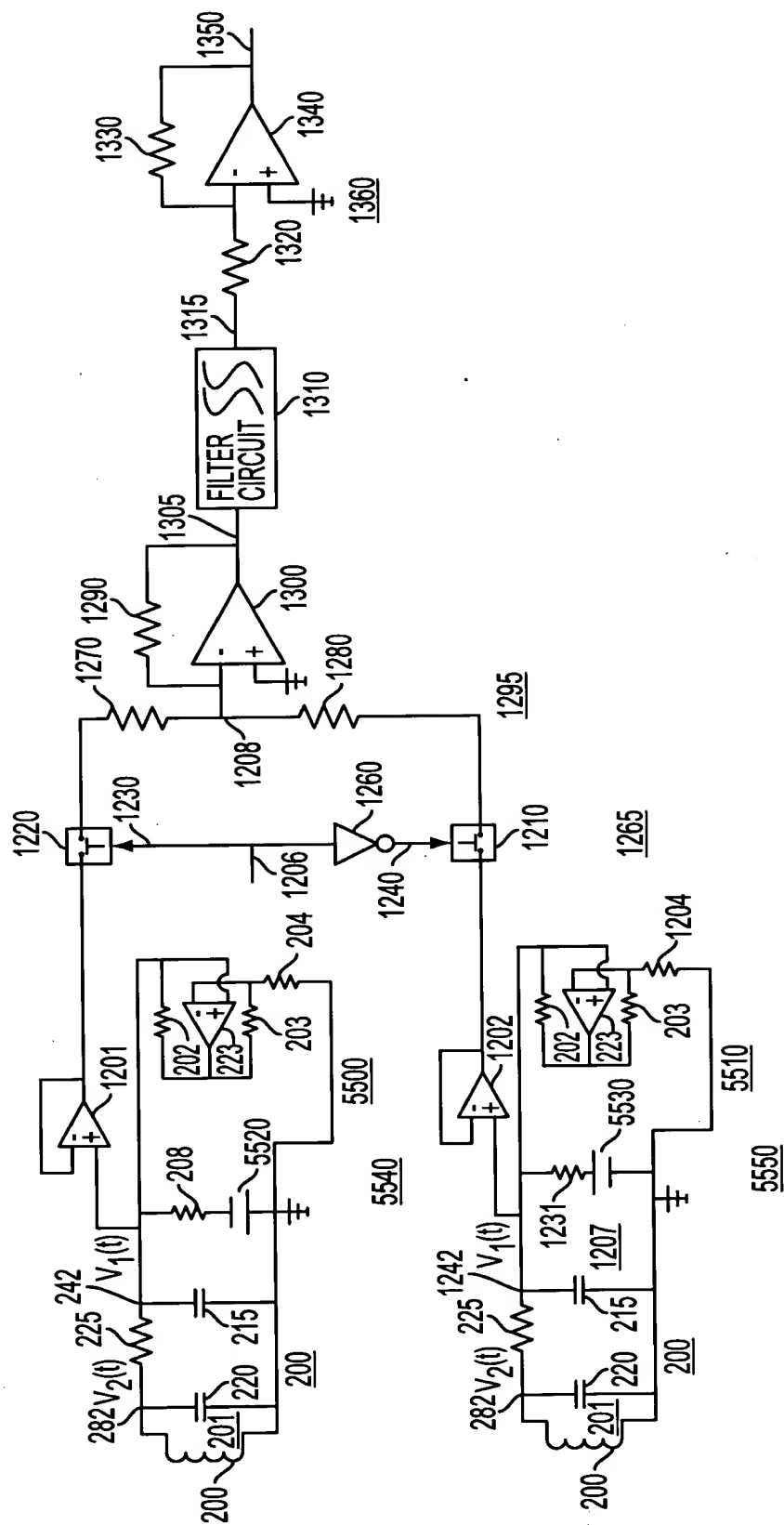
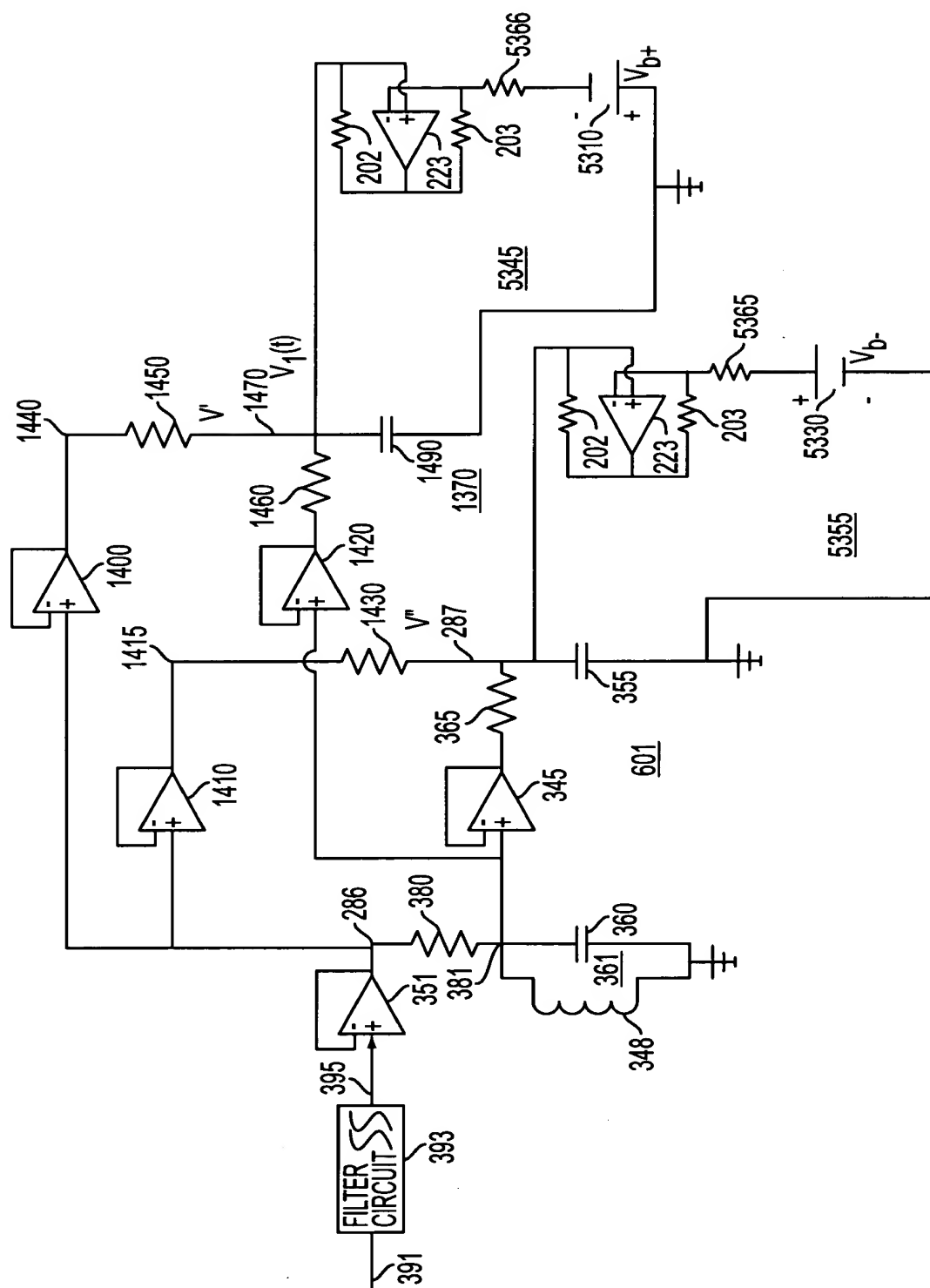
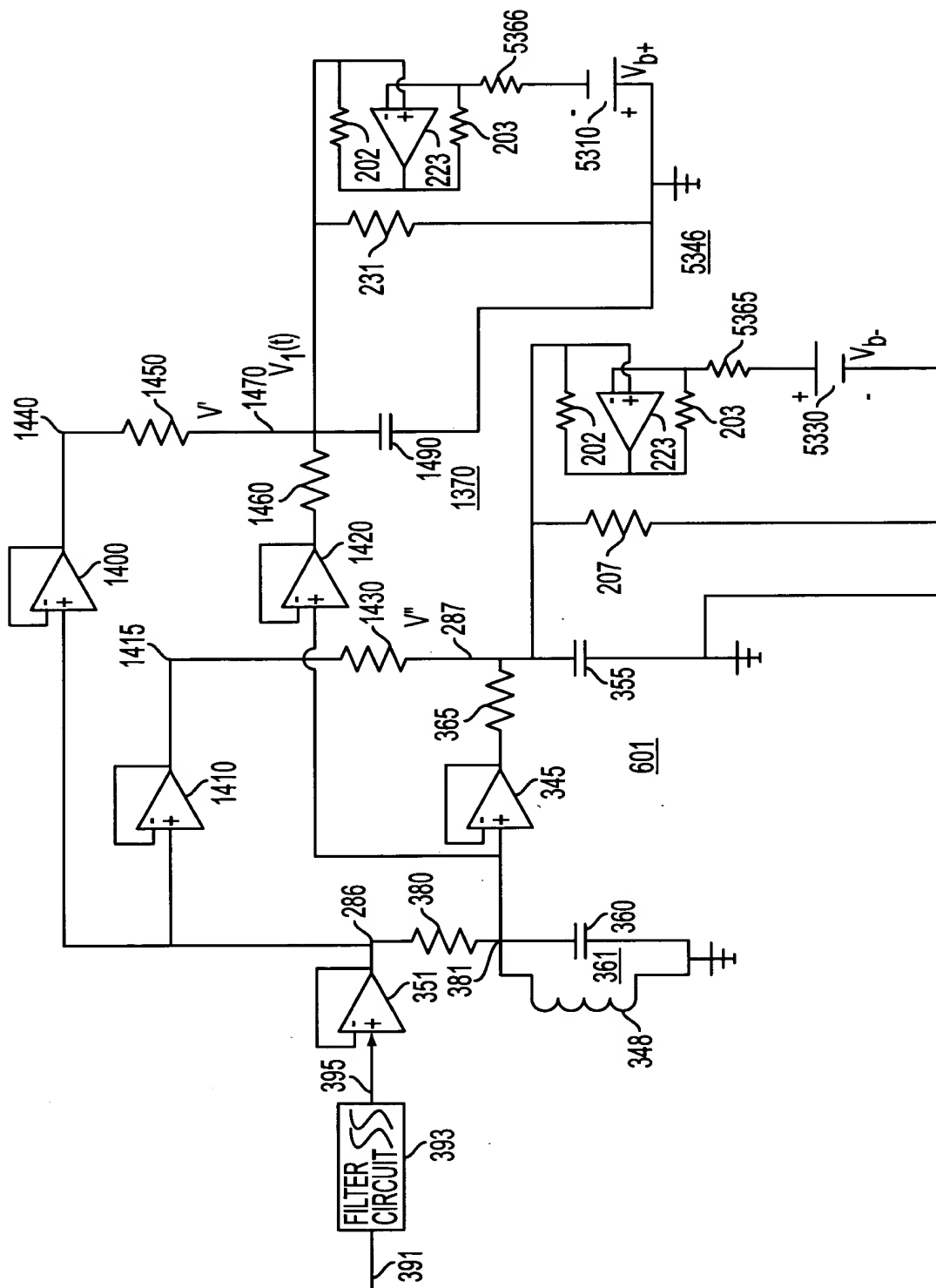


FIG. 44







**FIG. 45B**

$$G_b = (R_2 - R_1) / (R_1 \cdot R_2) = G_a - (1/R_2)$$

WHERE R2 IS COMPONENT [207] AND/OR [231]

$$+V = +V_{bp}(G_a/G_b) - V_{bp} = [5240]$$

$$-V = -V_{bp}(G_a/G_b) + V_{bp} = [5250]$$

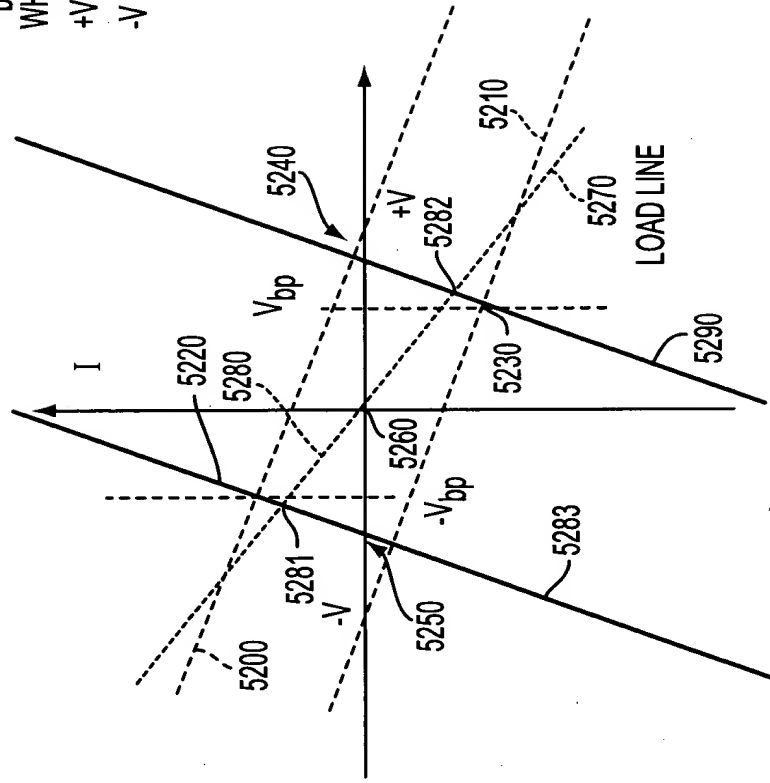
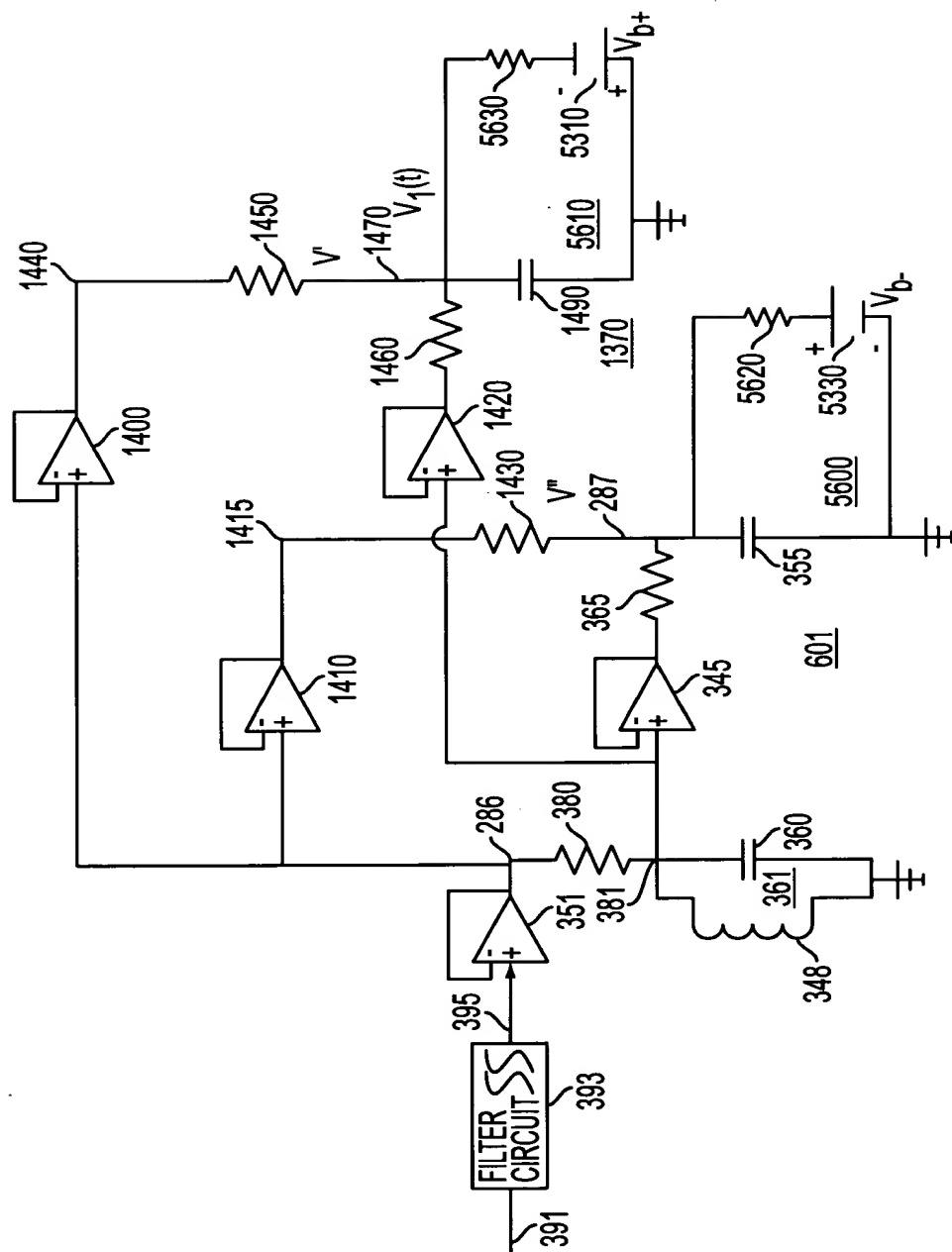


FIG. 46



**FIG. 47**

DETECTION MATRIX

V2	V1	V1'
-/+	+	-

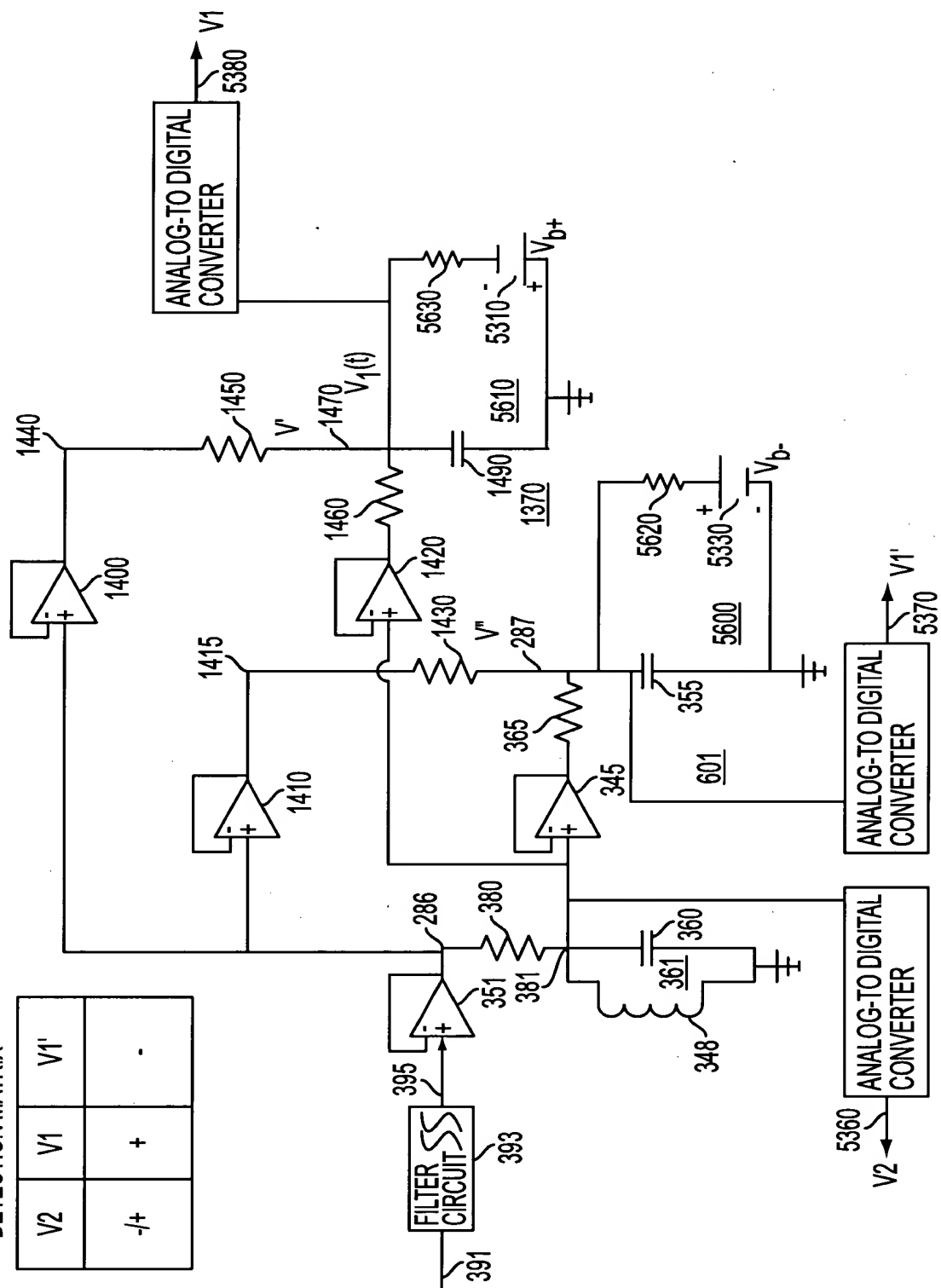


FIG. 48

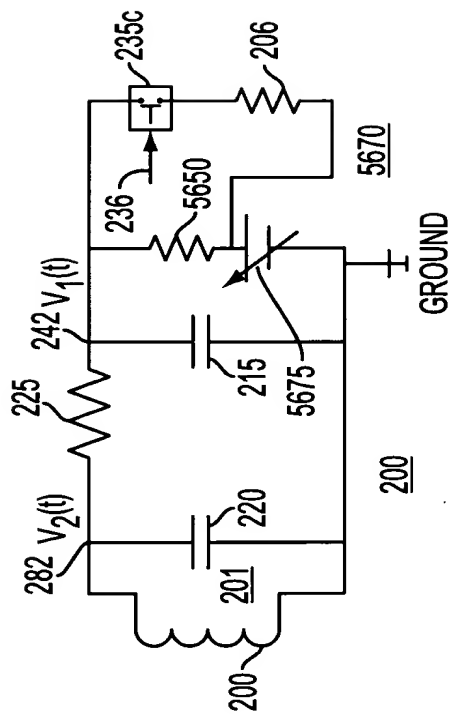


FIG. 49

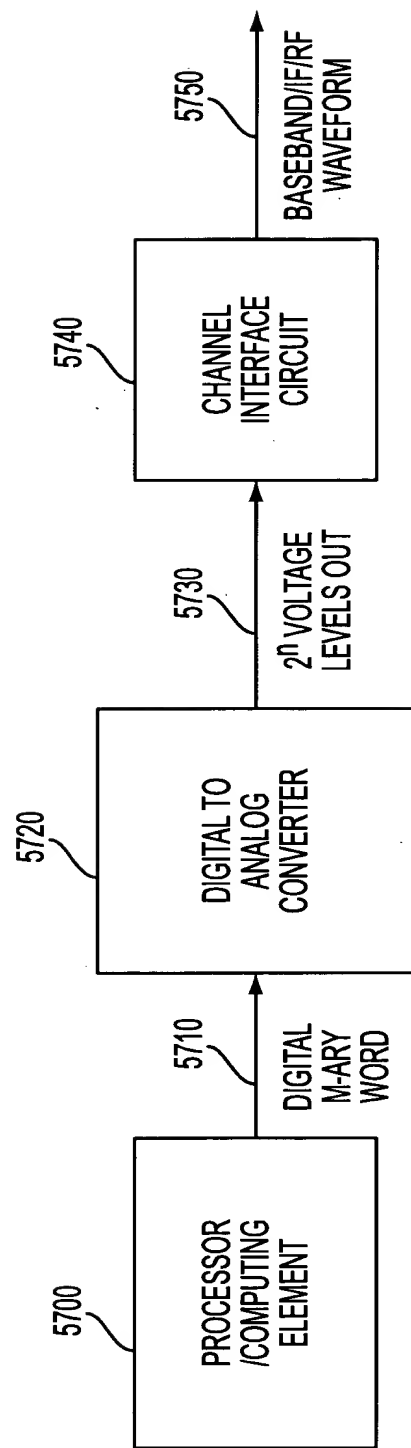
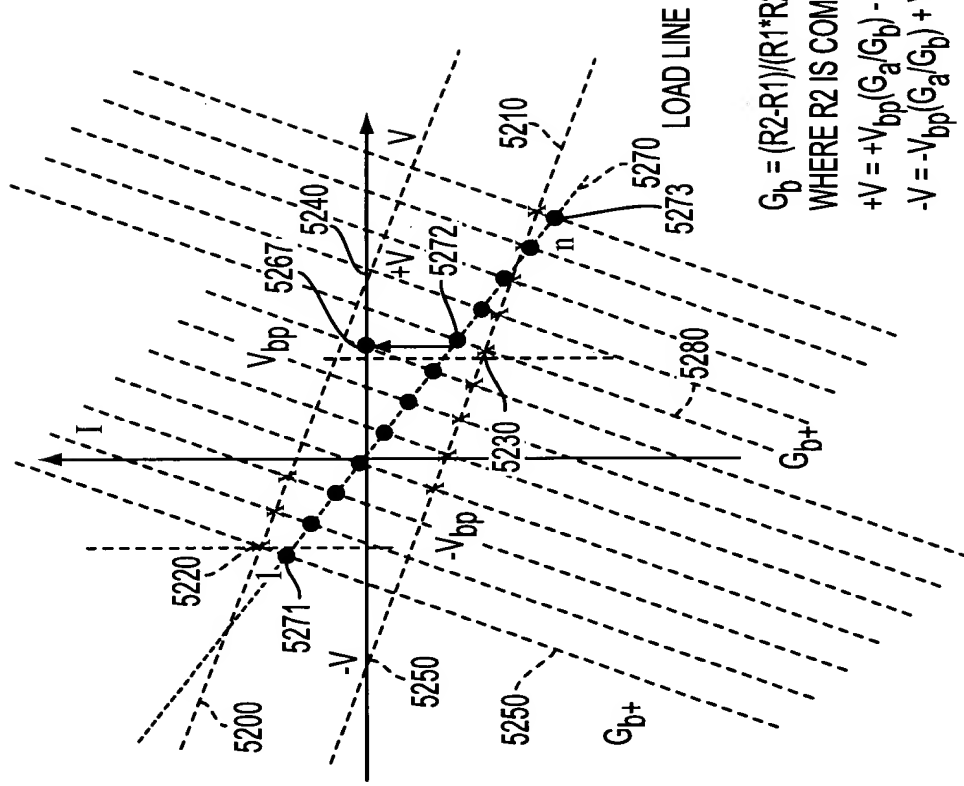


FIG. 50



$$G_b = (R_2 R_1) / (R_1 R_2) = G_a - (1/R_2)$$

WHERE  $R_2$  IS COMPONENT [207] AND/OR [231]

$$+V = +V_{bp}(G_a/G_b) - V_{bp} = [5240]$$

$$-V = -V_{bp}(G_a/G_b) + V_{bp} = [5250]$$

FIG. 51

